

CAPITALISING ON TACTICAL CHANCES

**EVERYMAN CHESS**

EXCELLING **AT CHESS** **CALCULATION**

JACOB AAGAARD

EVERYMAN CHESS

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INTRODUCTION

These days a lot of chess books are published on what I like to call 'general themes'. In most of them the author starts out by claiming that there exist virtually no books on... How to think in chess; endgame strategy; this or that positional theme; basically whatever... (seen most recently in Paata Gaprindashvili's fabulous *Imagination in Chess*, Batsford 2004). Of course this is no longer quite true (though it might have been when the writers were reading chess books themselves). I will not try to claim here, for instance, that there are no books on calculation. There are in fact several and they are all worth reading; I mention them in the bibliography and more than once elsewhere. If, after reading this book with the TV turned on, you cannot remember the titles, then perhaps you should turn off the TV and focus a bit more on chess!

In this book I discuss the subject of how to improve one's ability at chess tactics and calculation. To me, this involves opening the mind to certain ways of thinking, and then training. For that reason I have added a tactical test to this book (to my publisher's regret, as this made the book longer than expected and delayed its delivery until right before the planned publication date). I hope that this test will encourage players to work on improving their tactical ability.

At the same time as writing this book I was also working, together with FM Esben Lund, on a CD for *ChessBase*, which will probably be titled *Train Your Decision Making In Chess*. If the current book inspires you to do more work on calculation and decision making, then the CD would be a good place to continue.

Calculation is one facet of chess ability about which most people have an opinion. Amateurs, for instance, often think that grandmasters calculate many moves ahead. Grandmasters do have this ability, but it is not the primary difference between them and the average club player. Rather, there is a degree of accuracy, visualisation and organisation in a grandmaster's calculation, which together with his overall greater knowledge of chess makes him superior to the amateur. One aspect of this is greater imagination, to which I have devoted quite a bit of space in this book.

Here is one of my favourite moves of all time. No amateur (without some kind of training), I think, could ever have decided upon this move in a tournament game.

Krajina-Kozul

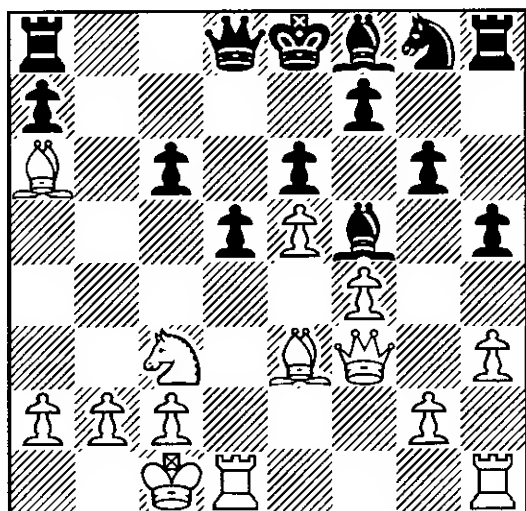
Vinkovci 1989

Sicilian Defence

1 e4 c5 2 f3 d6 3 d4 cxd4 4 xd4

♘f6 5 ♘c3 ♘c6 6 f4 g6 7 ♘xc6 bxc6 8 e5 ♘g8 9 ♚f3 d5 10 ♙e3 h5 11 h3 ♙f5 12 0-0-0 e6 13 ♙a6

With his last move White threatened both g2-g4 and ♙b7.



13...♙a3!!

What makes this move fantastic is that there is no immediate threat. Black simply undermines White's queenside defence.

14 bxa3

Stronger perhaps was 14 ♚e2 ♚a5 15 ♘b5! with unclear play.

14...♚a5 15 g4 hxg4 16 hxg4 ♖xh1 17 ♖xh1 ♙xg4 18 ♚xg4 ♚xc3 19 ♙g1

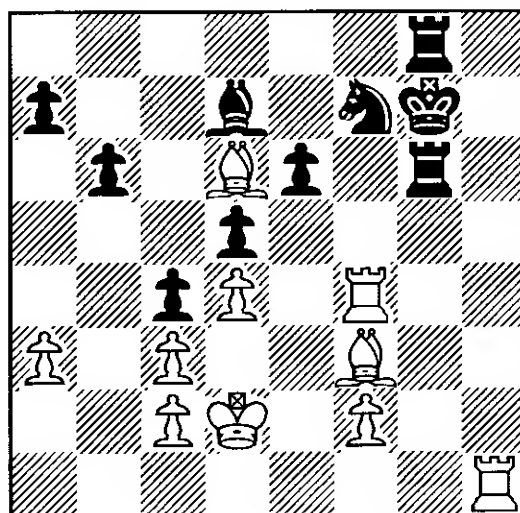
19 ♚h3! would have kept White alive.

19...♚xa3+ 20 ♙d1 ♚xa6 21 ♖h8 0-0-0 22 ♖h7 d4 23 ♖xf7 ♚c4 24 ♖xa7 ♙b8 25 ♖a3 ♘e7 26 ♚h3 ♘d5 0-1

Imagination (or vision) is not something people always associate with calculation. But the most important ability in chess is not seeing ten moves ahead, but seeing the position which is right in front of you. This kind of awareness has increased in the last ten years with the emergence of strong chess-playing programs, whose short-term vision is their greatest advantage over humans – because they are set up to examine everything. Thus they show us our small tactical mistakes and encourage us to improve our calculating abilities. The following is one of my favourite examples:

Resika-E.Lund

Budapest 2002



White to play and win.

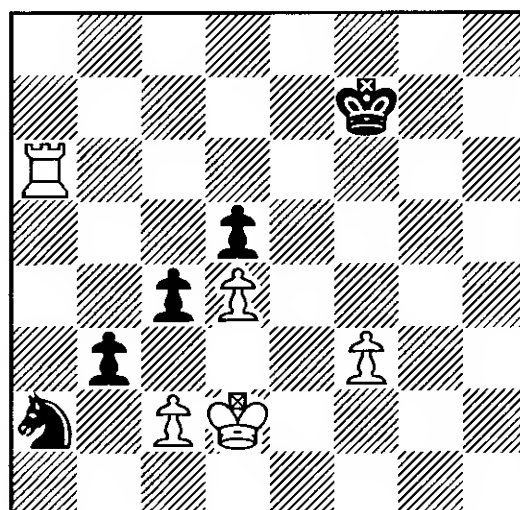
1 ♙h5!

A nice tactic that wins the exchange as 1...♘xd6 2 ♙xg6 ♙xg6 3 ♖g1+ ♙h7 4 ♖h4 is mate. Black could resign, but instead tried:

1...♖f6 2 ♖g1+?

This is sufficient to win, but the computer comes up with 2 ♖g4+! which wins a lot more than a rook.

2...♙h7 3 ♖xf6 ♘xd6 4 ♖fg6 ♖xg6 5 ♙xg6+ ♙h6 6 f3 ♘b5 7 ♙f7 ♘d6 8 ♙g8 ♘f5 9 ♙e2 ♘h4 10 ♙f7 ♘f5 11 ♖g6+ ♙h7 12 ♖g1 ♘d6 13 ♙g8+ ♙h6 14 ♖h1+ ♙g7 15 ♖h7+ ♙xg8 16 ♖xd7 ♘b5 17 ♙d2 ♘a3 18 ♖xa7 ♘b1+ 19 ♙e3 ♘xc3 20 ♖e7 b5 21 ♖xe6 b4 22 ♖b6 ♘a2 23 ♙d2 ♙f7 24 ♖a6 b3



25 cxb3??

25 ♖a7+! wins at once and 25 c3 would also win in the long run. Now it goes wrong.

25...c3+!

What White had imagined would happen here is hard to guess, but this game was played with FIDE-time (where both players get an extra 30 seconds after each move) and White still had about a minute left, so should have smelt the trap. Possibly the stress of prolonged time trouble was getting to him.

26 ♖d3??

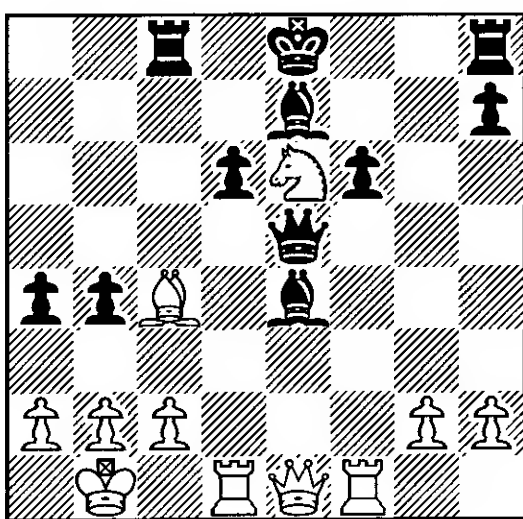
26 ♖e3 c2 27 ♖c6 c1♚ 28 ♖xc1 ♖xc1 29 b4 would still draw since the knight cannot escape the attentions of the white king, e.g. 29...♖a2 (or 29...♖b3 30 ♖d3) 30 b5 ♖e7 (30...♖c3?? 31 b6 wins) 31 ♖d2 etc.

26...♖b4+ 27 ♖xc3 ♖xa6 28 b4 ♖c7 29 ♖d3 ♖f6 30 ♖e3 ♖f5 0-1

But really, how much deep 10-move calculation is needed to play good chess? It used to be said about Petrosian that he did not calculate more than one move ahead, but that he saw everything that was worth seeing. Even in grandmaster games it is limited how much deep calculation is needed. The following queen sacrifice probably did not take a lot of investigation from Nijboer.

Nijboer-Acs

Wijk aan Zee 2003



White to play and win.

22 ♖xe4!? ♖xe4 23 ♖b5+ ♖c6

Now White obtains a better endgame. If instead 23...♖f7 24 ♖g5+ wins, or 23...♖c6 24 ♖d4! ♖f7 (24...0-0 25 ♖xc6 d5 26 ♖f5 wins) 25 ♖xc6 ♖e5 26 ♖fe1 ♖h5 27 ♖f3! with a strong, probably winning attack.

24 ♖xc6+ ♖xc6 25 ♖f4 ♖f7 26 ♖d5 ♖g8 27 g3 ♖g4 28 b3 axb3 29 cxb3 ♖d8 30 ♖f4 ♖xf4 31 ♖xf4 ♖b6 32 ♖d5 ♖c5 33 ♖f1 ♖e6 34 ♖xf6 d5 35 ♖xh7 ♖e7 36 g4 d4 37 g5 d3 38 g6 d2 39 g7 ♖c1+ 40 ♖xc1 dxc1♚+ 41 ♖xc1 ♖f7 42 ♖f8 ♖xg7 43 ♖d7 ♖f7 44 ♖c2 ♖e6 45 ♖b6 ♖c5 46 ♖a4 ♖f2 47 ♖d3 ♖d5 48 ♖b2 1-0

All very convincing. But in fact White could have done better at the beginning! If he had played 22 ♖b5+! then Black would not have been able to reach an endgame in which he had some chances of survival. After something like 22...♖c6 23 ♖xc6 ♖xc6 24 ♖d4! Black is completely outplayed and it is not easy to see how he should improve on this. The method which could have helped Nijboer to find this is changing the move order of the combination, as explained on page 61.

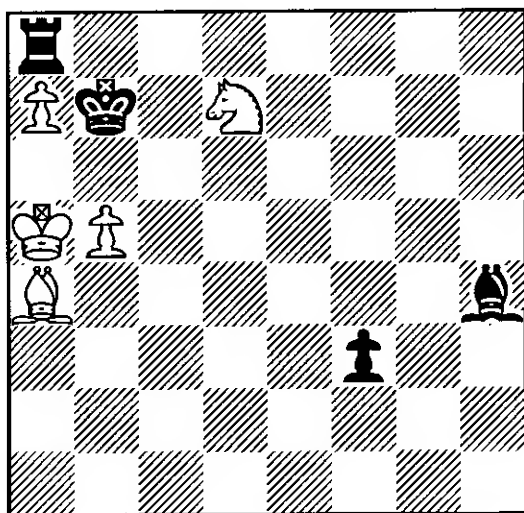
This is one side of the coin. We need to learn these tactical schemes so that we do not end up on the wrong side of such examples. But there is also another element to calculation: sometimes it *is* very difficult and requires hard work at the board to figure out the right way to proceed. The following is a flawed study from one of our time's greatest study composers, the Israeli IM Yochanan Afek, which could very well have arisen in a normal over the board game.

(see following diagram)

White is in serious trouble in this endgame and only saves it through a miracle. The following analysis was given in the *Study Database 2000* and probably comes from Afek.

Y.Afek

Chess in Israel 1999



White to play and draw.

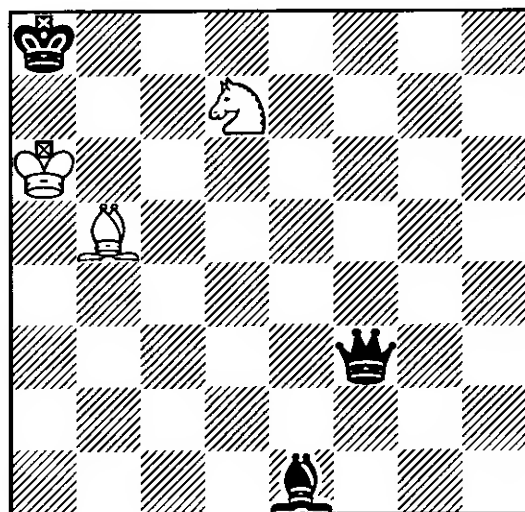
1 b6! ♖xa7+

If 1...♙d8? 2 ♘c5+ ♖c8 3 ♙d7 mate, or 1...♙f2 2 ♙d1 ♙xb6+ 3 ♘xb6 ♖xa7+ 4 ♖b5 f2 5 ♙f3+! (5 ♙e2? ♖a2 6 ♙f3+ ♖a7!) 5...♖c7 6 ♘d5+ ♖d6 7 ♘e3 and Black cannot win.

2 bxa7 ♙e1+ 3 ♖b5 f2 4 a8♖+! ♖xa8 5 ♖a6!

To allow a promotion with check is always attractive. Instead 5 ♖b6? ♙a5+!! and Black wins.

5...f1♖+ 6 ♙b5 ♖f3



7 ♙c6+! ♖xc6+ 8 ♘b6+ ♖b8 stalemate

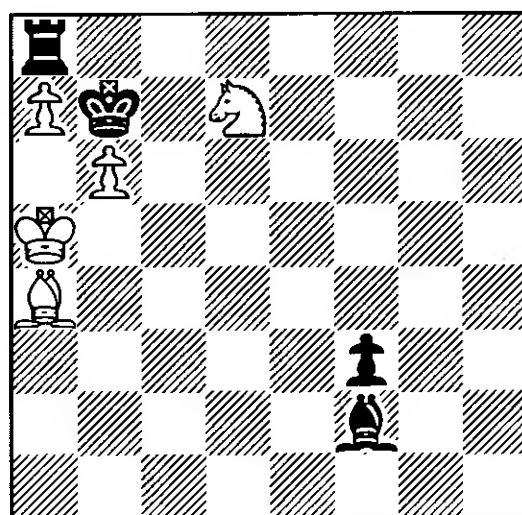
All of this is extremely nice, but there is a small problem in one of the lines: After 2

♙d1 ♙xb6+ 3 ♘xb6 Black can play 3...f2!, changing the move order, and after 4 ♙e2 (no better is 4 ♙f3+ ♖xa7 5 ♙g2 ♖g8 6 ♙h3 ♖g5+ and Black wins first the knight and then the bishop) 4...♖xa7+ 5 ♖b5 ♖a2 6 ♙f3+ ♖a7!! 7 ♙g2 ♖b2+ and Black wins.

One of the points of the study was meant to be that White could force the black king away from the knight, and thereby be in time to stop the f-pawn. After 2 ♙d1 this is no longer the case.

So what would we do if we reached this position in a game? Well, 1 b6 is the only move that does not lose very quickly. For instance 1 ♘c5+ ♖xa7 2 b6+ ♖b8+ 3 ♘a6+ ♖b7 4 ♙b5 ♙e1+ and Black wins without a fight is easy to calculate. With 1 b6 we would at least have a little counterplay.

So after 1 b6 ♙f2! we would again stand at a crossroads.



Here we would try to set up our *candidates*. Besides 2 ♙d1 we also have 2 ♙c2 and 2 ♙b3, all of which send the bishop in the direction of the f1-square. From our calculation of 2 ♙d1 (which is the most forcing move and therefore the first one we should analyse) we discovered that the undefended bishop became a problem. Therefore it is better to keep the bishop closer to the king. Of course this is an abstract conclusion which would be impossible to reach without calculation. In such a complex position as this experience will only help so far, while

general rules and guidelines will not help not at all. What we need to do is to analyse the moves carefully. Actually, when we get to the bottom of it, there are not that many variations:

a) 2 ♖d1 ♙xb6+ 3 ♜xb6

a1) 3...♞xa7+ 4 ♜b5 f2 5 ♖f3+! (5 ♖e2? ♞a2 6 ♖f3+ ♜a7!) 5...♜c7 6 ♜d5+ ♜d6 7 ♜e3 and Black cannot win.

a2) 3...f2! 4 ♖e2 (or 4 ♖f3+ ♜xa7 5 ♖g2 ♞g8 6 ♖h3 ♞g5+ and wins) 4...♞xa7+ 5 ♜b5 ♞a2 6 ♖f3+ ♜a7!! 7 ♖g2 ♞b2+ and Black wins.

b) 2 ♖c2 ♙xb6+ 3 ♜xb6

b1) 3...♞xa7+ 4 ♜b5 f2 (or 4...♞a2 5 ♖e4+ ♜a7 6 ♖xf3) 5 ♖e4+ ♜c7 6 ♜d5+ ♜d6 7 ♜e3 ♜e5 8 ♖g2 ♞g7 9 ♖f1 ♞g1 10 ♜c5!! ♜e4 11 ♜c4! and it appears that Black cannot win.

b2) 3...f2! 4 ♖e4+ ♜xa7 5 ♖d3 ♞d8! 6 ♖e2 ♞e8 and Black wins.

c) 2 ♖b3!

c1) 2...♙xb6+ 3 ♜xb6 ♞xa7+ (this time 3...f2 4 ♖c4 ♞xa7+ 5 ♜b5 is a little different!) 4 ♜b5 f2 5 ♖c4 ♜c7 6 ♜d5+ ♜d6 7 ♜e3 ♞b7+ 8 ♜a6 ♞b1 9 ♖d3 ♞e1 10 ♜f1 ♜c6 11 ♜a5 ♜c5 12 ♜a4 ♜d4 13 ♖b5 ♞b1 14 ♜g3 ♜e3 15 ♜f1+ ♜f4 and it does not appear possible for Black to make progress.

c2) 2...♜c6 is an extra option, but after 3 ♜b8+ ♜c5 4 ♜a6+ ♜c6 5 ♖d5+! (we do not even need to see this since we are happy with a draw) 5...♜xd5 6 b7 and White even wins.

(Thanks to John Shaw for his help with analysing this study).

Of course it is difficult to calculate all this, and I imagine that an average grandmaster between 2500 and 2600 would take 10-15 minutes to make the right choice, and occasionally fail. But is it impossible to learn how to calculate it all? No. First of all, let us look at what really needs to be seen:

The difference between 3...f2 and 3...♞xa7+ is important. In two out of three lines everything becomes clear very quickly, so they can be disregarded altogether as inva-

lid. Just as easily we would not be able to refute 2 ♖b3! which, in a game, would alone be enough to inspire us to play it, leaving the accurate calculation to the opponent. As you will learn in this book, one of the main points of calculation is that we should only calculate when we have a choice – although strong players know that we often have more possibilities than we see at first glance.

In this book I have tried to give a good overview, to lay out some useful tools, and to explain how we can train to improve our calculation. For those frightened by analysis, this book will be a true horror story. But it is impossible to study tactics without once in a while venturing into analysis, to understand what we are really dealing with. For my other books I have generally refrained from long variations and tried to explain everything with words. But here it was the variations themselves that needed to be explained. Also, for those interested in working with this book seriously, it will be an advantage to be able to follow the author's reasoning more closely.

As always I would like to use a little space to thank those who have helped me in writing this book: Danny Kristiansen for his assistance and proof reading; Mark Dvoretsky for allowing me to use from his lectures four examples which I felt suited my agenda well; John Shaw and Esben Lund for occasional advice; Byron Jacobs for postponing the deadline; and Anne Faith James for moral support.

Finally, I would like to apologise to the reader for using my own games to such a large extent. I have no illusions as regards their quality. It is merely easier for me to target specific themes when I know what the player was actually thinking during the game. I hope that the lack of chess beauty presented in them will not ruin the overall impression of the book.

Jacob Aagaard,
Glasgow,
July 2004.

CHAPTER ONE

Before you can think, you need to learn how to see

The most famous book ever written on calculation is Alexander Kotov's legendary and much discussed *Think Like a Grandmaster*, originally published in Russia in 1970 and subsequently translated into several languages. This book covers a lot of important topics such as handling of time trouble, how to assign thinking time in calculation, and attention to general concerns: bishops protecting or restricted by their own pawns, and so on. But more than anything the book is famous for its first third dedicated to the calculation of complicated variations.

Other later important books on this subject are Mark Dvoretsky's *School of Chess Excellence 2 – Tactical Play*, Jonathan Tisdall's *Improve Your Chess Now*, and Dvoretsky and Yusupov's collection of essays from a training seminar for very talented youngsters in Russia 1992: *Attack and Defence*. All the authors are in an inescapable dialogue with Kotov, never fully agreeing with the old master, but always deeply respectful. In the current book I will use Kotov's terminology too, as well as trying to show the differences between the various viewpoints on this – for the practical player – deeply important issue.

But here I will also give attention to different phases of analytical technique that the previous books have not sufficiently covered.

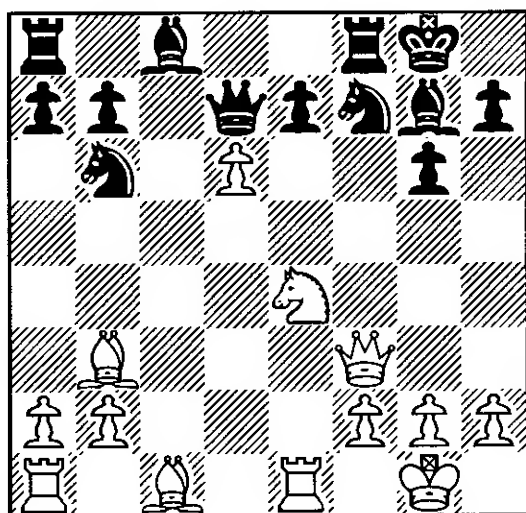
The problem for most chess players wanting to improve their results is that books are aimed at a level above which they currently perform; there are certain abilities they need to acquire before they can benefit fully from complex calculation tools such as the method of comparison or the tree of analysis. Work with eager pupils in all age-groups shows that some simple abilities are not natural and need to be developed, but which can be trained with success all the way up to the very best players in the world.

At a seminar in Denmark in 2002 Artur Yusupov told how he once, while walking around the tournament hall, came to stop at the board where Alexander Morozevich was playing. Morozevich was deeply concentrating on the position, thinking and thinking. Yusupov did not understand why Morozevich was thinking, as the position had one completely obvious move and no real alternatives. Assuming that Morozevich, rated in the world's top ten, knew what he was doing, Yusupov started to look for alternatives, and found that Morozevich actually did have a very interesting alternative. Morozevich kept on thinking and Yusupov returned to his board and made his draw. He went to watch Morozevich again and found he had made a third and equally interesting move!

This little story – and others like it – tells us that even top grandmasters do not automatically see all valid possibilities on the first move! However, experience shows that this ability can be developed and continuously trained – and indeed should be, as it is probably the most important technique the tournament player can acquire and master.

Kotov (and most of his followers and critics) begin with lining up the *candidate moves*. This is an important aspect of analysis, but it cannot be done very well without some kind of training in how to find the candidates! There is more about this in the next chapter, but first take a look at the following position and, as a quick test of your ability to see, try to select three possible continuations for White.

Nøhr-M.Nielsen
Taastrup 2002



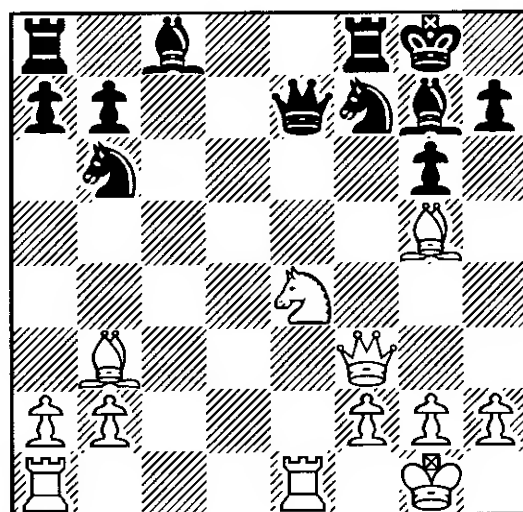
White to play.

In this position White was soon lost after **19 ♖g5? exd6 20 ♖e6?**, since Black, had he been trained in looking for candidates, could have used the unprotected rook on the first rank to eliminate the unpleasant knight by the odd-looking **20...♜e8!**, pinning the knight and preparing ...♙xe6, thus securing the king and his material advantage. The more natural **20...♜c6!**, forcing an endgame with two minor pieces against a rook, should also have won quite easily.

Instead of 19 ♖g5?, White has two equally interesting opportunities, both leading to sufficient compensation for the piece. But before we turn to the concrete options, let us linger a second to consider the abstract objectives in the position. White has sacrificed a piece in order to attack. He needs either to regain his material, or equivalent material, or deliver mate in order to justify his actions. There is no doubt that he has the initiative, but in order to take advantage he needs to bring all his pieces into play quickly, to gain a majority at the scene of action, in order to fulfil his objectives. Less abstractly, this means that he needs to get his finger out and get the queenside into play! This is what we would expect a grandmaster would most likely try to achieve.

The first of the two relevant candidates is the following:

19 dxe7!? ♜xe7 20 ♙g5!



This is the most logical and simple way of mobilising the queenside: f6 is under attack and White develops the bishop with tempo. Soon the rook will enter the action and White will start a direct assault on the black kingside, before Black is able to develop his own pieces. Quick analysis shows that Black should probably respond with:

20...♜b4!

After 20...♜d7? 21 ♙f6!! Black cannot defend himself.

a) 21...♙h8 22 ♜c3 ♖h6 23 ♜c5 ♙g8 24

$\text{R}a1$ $\text{Q}xf6$ 25 $\text{Q}xf6$ and White wins.

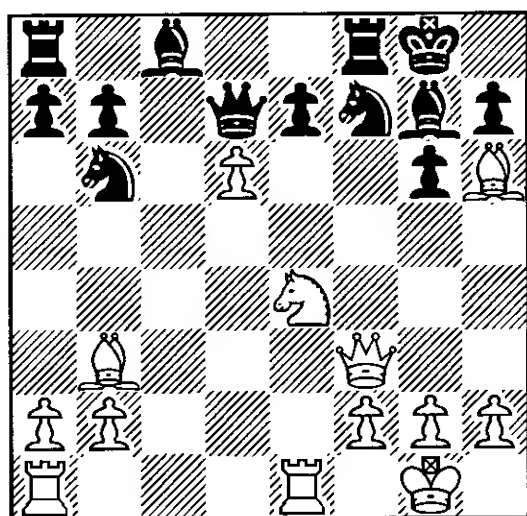
b) 21... $\text{Q}f5$ 22 $\text{Q}c3$ $\text{Q}h6$ 23 $\text{Q}d6$ $\text{Q}h5$ 24 $\text{Q}xf7$ $\text{R}xf7$ 25 $\text{R}e8+$ $\text{Q}f8$ 26 $\text{R}xf8+$ $\text{Q}xf8$ 27 $\text{Q}b4+$ and Black is mated.

20... $\text{Q}c7?$ 21 $\text{R}ac1$ $\text{Q}d7$ 22 $\text{Q}f6$ is similar. It is not easy to imagine a line where the rook is worse on c1 than it was on a1.

Now, if he has nothing better, White has **21 $\text{Q}d2$ $\text{Q}e7$ 22 $\text{Q}g5$** with repetition, though 22 $\text{Q}g5!$? looks far more tempting now than it did earlier. Sometimes it is enough to know you have a definite draw in order to go for a line, especially if that line includes a substantial sacrifice.

All this is not so surprising. That White went for 19 $\text{Q}g5$ in the game should be accredited to a lack of attacking technique (Finn Nøhr is mainly a positional player) rather than an inability to calculate variations.

However, some unimpressed youngsters and the equally unimpressed *Fritz* 7 found **19 $\text{Q}h6!!$**



Black to play.

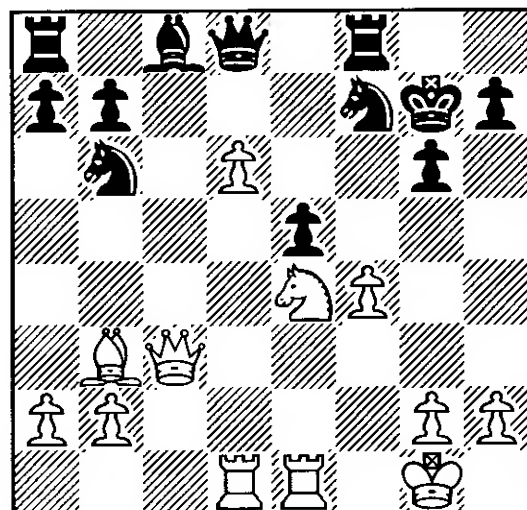
19 $\text{Q}h6!!$ might be a surprise, but what now?

The main idea behind 19 $\text{Q}h6!$ is not so hard to spot. If Black plays 19... $\text{Q}xh6$ then 20 dxe7 and White wins a lot of material due to 20... $\text{Q}xe7$ 21 $\text{Q}f6+$ and Black has to give up his queen for insufficient compensation. But Black of course needs to respond. He cannot play 19... exd6 because of 20 $\text{Q}f6+$; nor can he play 19... $\text{Q}f5$ (an attempt to free

the queenside and relieve the pressure on the king by exchanging queens) since after 20 dxe7 $\text{Q}xf3$ 21 $\text{exf8Q}+$ $\text{Q}xf8$ 22 gxf3 $\text{Q}xh6$ 23 $\text{Q}d6$ the pin costs Black a piece and he ends up the exchange down.

But what is White really threatening? Nothing in particular; his next move would be 20 $\text{R}ad1$, after which he does start to have a lot of threats, but mainly 19 $\text{Q}h6!$ is about domination. Black cannot get out of this with 19... e6 since after 20 $\text{Q}xg7$ $\text{Q}xg7$ 21 $\text{Q}f6+$ $\text{Q}g8$ (21... $\text{Q}h6$ 22 $\text{R}e3$ or 22 $\text{Q}g5$ illustrates the need to see little other than candidates) 22 $\text{Q}d4$ White has a very strong, probably decisive attack.

Black's only move is to force White to exchange on g7 without relinquishing his weak, but still existing control of f6. **19... $\text{Q}h8!$** is therefore the only defensive option that gives Black any hope of surviving. White should now proceed with **20 $\text{Q}xg7+$ $\text{Q}xg7$ 21 $\text{R}ad1!$** bringing the rook into play as described in the abstract objectives above. As yet we have not managed to find a defence here for Black, and most likely there isn't one. One attempt starts **21... $\text{Q}d8$** but then **22 $\text{Q}c3+$ e5** (Black has no choice here as after 22... $\text{Q}h6$ 23 dxe7 $\text{Q}xe7$ 24 $\text{Q}d6!$ he is under heavy artillery fire, unable to find cover anywhere) White has time and active pieces enough for launch a deadly attack on the dark squares, weakened by the exchange of the bishops. Best is **23 f4!**



and Black seems to be quite lost. The variations go something like this:

a) 23...♙g4 24 fxe5 ♙xd1 25 e6+ ♖h6 26 e7 ♜d7 27 ♜d2+ ♙g7 28 ♜d4+ ♖h6 29 ♜xd1!

b) 23...♞d7 24 ♙xf7 ♖xf7 (or 24...♜xf7 25 fxe5 ♜b6+ 26 ♖h1 ♜c6 27 e6+ ♜xc3 28 ♞xc3 ♜f5 29 e7 ♞f6 30 e8 ♜ ♞xe8 31 ♜xe8 ♜f8 32 d7 and White has not yet finished cashing in) 25 ♞g5+ ♙g8 26 ♜c4+ ♖h8 27 ♞f7+ ♜xf7 28 ♜xf7 and White has a winning attack without having invested any serious material in the process.

So the conclusion to this exercise is that White wins after 19 ♙h6!! – truly a stunning move that neither of the players considered during the game, nor any of the spectators. The tactics following this move are not so hard for a strong player with sufficient knowledge of attacking technique to find, but simply *seeing* the first move is difficult. It is probably no surprise to the reader that it was *Fritz 7* which originally discovered this possibility. Strong chess-playing programs have transformed the way we think by showing us corridors between our logic and our eyes that previously were dark and hazy, if not completely closed to us. Though a computer makes a lousy chess teacher it can be a useful tool in the hands of the serious chess player and chess trainer, by pointing out different alleyways and possibilities. But more about that later.

Let's return to the issue of seeing through the eyes of a human. When Kotov writes that we should select a limited number of candidates to calculate, he actually skips the most important part of the process. Finding moves is by no means easy. What young players normally try to do when they follow Kotov's advice is look quickly at a few possibilities and then try to calculate them one by one, as directed by Kotov. Again and again they then flip to the solutions (or these days compare their thoughts with those of a computer) and

find that they are way out in the haystack, and that if the needle is anywhere to be found, it is sitting in their own behind. Often they simply do not find the best first moves, and instead of accepting this as a lack of technique, they get frustrated and lose belief in themselves. Unsurprisingly they quickly lose interest in a type of exercise which is very difficult and gives them nothing but failure.

This can be compared to people starting out in jogging, unaware of the time it takes for the body to build muscles or simply to get warmed up. Many are the cases of people stopping again, assuming that the pain they get in their calves is due to a problem with jogging or with their legs, and not simply jogging technique. Because, how difficult can it be to run a mile or two? Well, it takes about 8-12 minutes for the body to warm up and if you start too quickly, then you will inevitably suffer and have a disappointing experience.

The same goes for training calculation. Searching for candidate moves is not an automatic process. The mind usually does not work logically, but intuitively. Searching the board for possible moves is neither automatic, nor something that will happen automatically once you know you need to do it. You need to train at it.

Some people claim that they end up playing their first idea 75% of the time or even more. Does this mean that we actually see our best move immediately in 75% of the cases? No. This phenomenon can be explained by several factors involved in the decision process. First of all, we have a natural tendency to want to play the move selected for us by our intuition, and our subsequent thought processes will often become an attempt to prove the correctness of our intuitive choice, or else we simply play the move because of the feeling that it is right. Secondly, if we are not very good at selecting candidates or really looking for other options

in a position, we are not likely to find alternatives to our first thought; while if we do not select candidates at all and simply skip the search function, we are not likely to have many alternatives. Furthermore, the 75% does not tell how many times this first thought actually is the best move in the position, nor about how many of these positions might be deemed critical. Obvious moves do exist (even though we might try to keep the above Yusupov example in mind) and often the obvious move is the best move, whether we try to find superior alternatives or not. How much of the 75% remains if we take all these restraints into consideration? Probably not a number significant enough to support the claim that we should value the first move we see that highly. Finally, it is very possible that the majority of mistakes committed by players who have problems selecting candidate moves are to be found in the remaining 25% anyway.

It is obvious that some players are intuitive, while others are very concrete and logical in their approach to chess. And though this indicates completely different thought processes and different bases for decision making, both types of player will benefit greatly from learning the selection of candidate moves.

For logical players there is great need for a sound basis of candidate move selection in all kinds of positions (based on logic or general concerns), because the moves that just come to them can hardly be trusted in great numbers. The very reason for defining them as analytical players is due to their relative weakness in intuitive decision making and their reliance on a concrete analytical approach. They need to really look for the opportunities in order to know what to analyse, and they need to analyse in order to know what to play.

Perhaps more surprisingly, there is great need for intuitive players to learn to select candidates as well. To be an intuitive player

does not mean that you necessarily see more moves. Rather it means that you have a good feeling as to which direction the position going, that you know where the pieces belong and, most importantly, that you have automatically make good evaluations of the different positions reached in your calculation. The problem with this way of thinking, despite its obvious advantages, is that if the solution is not in the direction your intuition tells you it is, you will probably not be able to solve the position at all.

The important thing to be aware of about seeing is that we continuously change the way we look at a chess position. If you try to return to the position above, you will find it impossible to look at the position with the same eyes as you did before solving it. Before you read the solution, 19 ♖h6 may not have been within your horizon, while after seeing the solution, it takes a great effort to look at the position and not see 19 ♖h6. This is because the way we see the world is structured not only by light and colours, but also by our brain which organises the information imported through the visual cortex.

Chess positions will have no meaning to someone who does not know the rules, while they might seem overpowering with all their possibilities for the beginner. But, in time, the number of possibilities are reduced to a limited number, until one day you may feel like Yusupov, that there is an obvious move in the position and nothing else. This is the natural progression for a chess player, but it is not the end of the line at all.

A learning process has usually four phases: The first phase is called unconscious incompetence, the second conscious incompetence, the third conscious competence, and the fourth phase is called unconscious competence. Related to chess vision this can be translated into the following four phases.

- Chess pieces are pieces of wood. No knowledge of the rules at all.

- Knowledge of the rules, but with a great amount of possibilities that cannot truly be evaluated. This is the situation of the beginner. All legal moves are possible candidates.
- A greater knowledge of chess and of the evaluation of moves. The amount of possibilities becomes greatly reduced. This is the level of the club player and developing players.
- Chess positions immediately make sense and obvious moves appear in the subject's head. This is the situation of the very strong chess player with a fully developed intuition.

If we were unaware of the Yusupov story above, we might be led to believe that the fourth phase was an attainable goal. To look at a chess position and immediately *read* it in a way that makes absolutely sense is of course an advantage, but it will also be a pretext for doing nothing, something that makes you feel there are no other possibilities in the position. This actually comes pretty early on in a chess player's progress. In his entertaining and rather philosophical book, *Creative Chess*, Amatzia Avni divides the development of the chess player's imagination into three stages:

- Everything may be right; everything is possible. There are no principles, no guiding laws.
- Everything that falls inside the frames is possible; the rest is wrong.
- Everything that falls inside the frames is possible; the boundaries between the frames and their surroundings are not rigid. So what is outside the frames can *also* be possible.

Or to put it another way:

- Any move is possible.
- The number of possibilities is highly

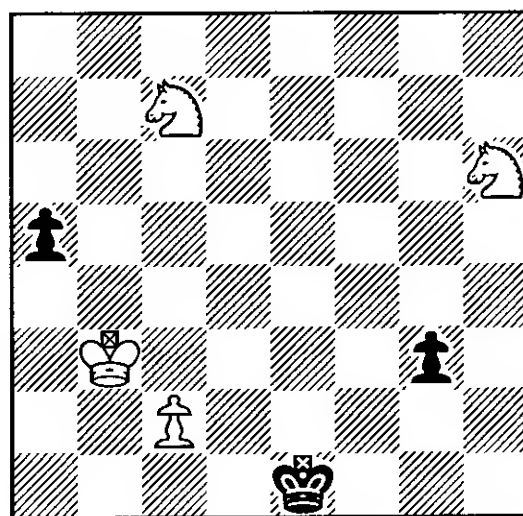
limited and no other possibilities are considered.

- Few moves are considered, but all options again become open.

In chess, realising that we cannot and do not see everything immediately is highly important for the development of our thinking abilities. Before we can say 'select candidates', we need to talk about the ability to find moves. This is a kind of *chess vision* and is a methodology that will prove very helpful in practical games. Chess vision can be developed quite easily over time through the solving of different exercises; for example, exercises specifically designed to develop chess vision. A much more common type is solving simple combinations. Some people claim that you should not solve too easy combinations, which is true – as long as we add the word 'exclusively'. Exercises that can be solved simply by finding the right combinational motif are good for improving your chess vision. You can never do enough. Another way is by solving difficult studies. The following study is a good example of the possibilities in chess, and how we need to open our eyes to them.

M.Liburkin

64 magazine 1939



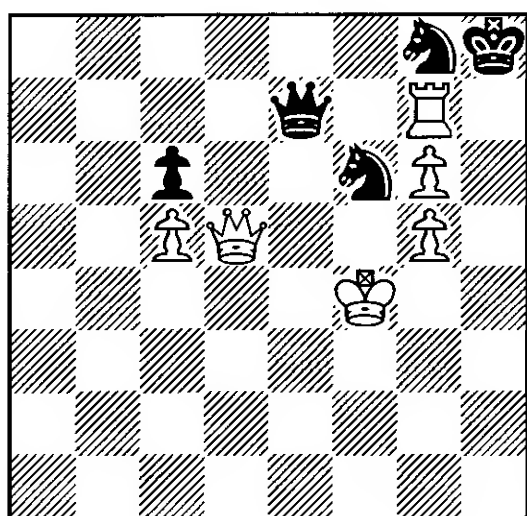
White to play and win.

The prime component of this study is the ‘threat’ of being left with two knights vs. nothing, and thus being unable to force your will upon the opponent. That the black pawn can be stopped is easy to see, but both knights are able to catch up with the pawn, and only one of them wins.

Before we give the solution, let us have a look at another great study, which is dedicated solely to finding the right move, and with not so much to calculate.

J.O'Donovan

British Chess Magazine 1939



White to play and win.

The solution to the first study should include seeing Black's resources as well.

1 ♖f5

Using the other knight, e.g. by 1 ♖e6 g2 2 ♖g5 fails to 2...a4+! 3 ♖a3 (if 3 ♖c3 a3 etc.) 3...g1♚ 4 ♖f3+ ♖d1 5 ♖xg1 ♖xc2 with a book draw.

1...g2 2 ♖h4 g1♚

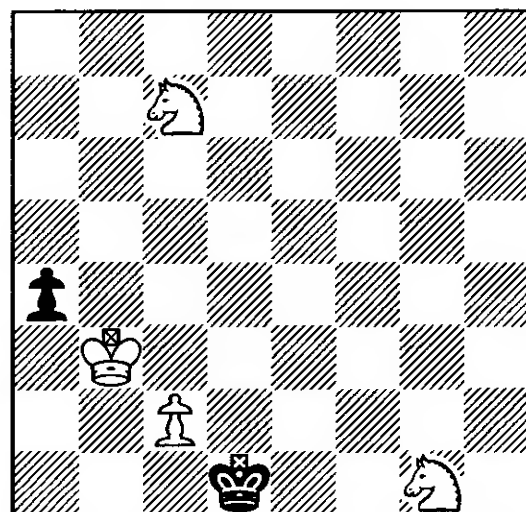
2...g1♖ is of course also possible, but it will not make a draw in the long run, so we stop there after a few general observations, such as that the knight cannot immediately catch the c-pawn and force the undesired endgame.

3 ♖f3+ ♖d1!

This is again the idea. After 3...♖f1 4 ♖xg1 ♖xg1 the c-pawn cruises down to the

eighth rank.

4 ♖xg1 a4+!



An important thing to remember when one calculates is that the opponent is playing according to his plans, and not according to yours. If you tried to solve the study, this was the main thing you should have spotted, and what can be done about it.

5 ♖c3!

Retaining the pawn is non-negotiable.

5...a3 6 ♖d5 a2 7 ♖e3+ ♖c1

7...♖e1 8 ♖b2 and wins.

8 ♖e2+ ♖b1 9 ♖d2!

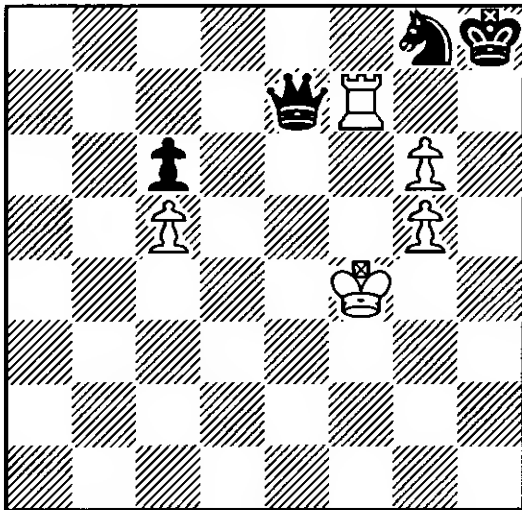
Setting up the cage where Black will be smothered to death.

9...a1♚ 10 ♖c3+ ♖b2 11 ♖c4 mate.

A very aesthetically pleasing study, and one that requires that you find some nice moves in order to solve it.

The second study is even more imaginative. White cannot win after the tempting zugzwang operation 1 ♖xg8+ ♖xg8 2 ♚f7 as Black has the stalemate defence 2...♚f8!! So White needs to find another way to proceed. There is hardly any methodology that can be used for solving this study that you could take with you into a practical game. The only thing is open eyes to additional opportunities, i.e. the conscious incompetence as a chess player that gives you the right to look at all possibilities afresh. Here that might assist you to find

1 ♔xg8+! ♚xg8 2 ♖f7!



and White wins, as the stalemate trick is gone, e.g. 2...♚f6 3 gxf6 ♔xc5 4 ♖h7+ ♔g8 5 f7+ ♔f8 6 ♖h8+ ♔g7 7 ♖g8+ ♔h6 8 f8♔+ and so on.

One problem with study solving is that you cannot help but wonder why there are pawns on c5 and c6, since for a study to be aesthetically sublime, all pieces on the board need to have a function.

However, although training is training and should not be a competition, and although simulations of real playing situations are desirable at times, the main function of training is to isolate particular abilities and improve them through specifically designed exercises. Studies can be good for expanding chess awareness and improving chess vision.

Nevertheless, for most players studies are difficult, and one of the important aspects of training is to build confidence and motivation which is not achieved by trying to solve far too difficult exercises. Instead, you should solve exercises of medium difficulty. In this way there is a balance between pleasure (for training should be pleasurable or you will stop doing it before you reap any rewards) and the development of particular abilities. By solving simple combinations your success rate should be high and the benefit in terms of developing chess vision should also be quite high.

Let me add a final word in this chapter concerning methodology: When solving tactical exercises whose main idea is simply to find moves rather than to calculate accurately, you will learn naturally to look for moves. This is an important ability to take with you to the board, where you will be able to find additional possibilities again and again. In this book we shall return to this ability repeatedly, at various stages in the calculation process. The important thing to remember is that moves are not all visible by themselves, even after lengthy training in chess vision. Many moves will have to be found. Solving exercises with this theme, and a general awareness of the things we overlook, will help you to pay more attention to this phenomenon.

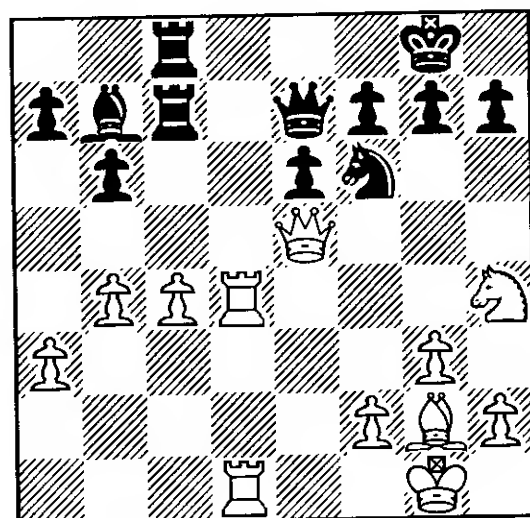
CHAPTER TWO

Candidate Moves

We have already briefly touched upon this subject in the previous chapter and now we will go deeper into the aspects of the selection of *candidate moves*. Kotov was the first to introduce the terminology of candidate moves, although his book is famous more for his 'tree of analysis'; and while many authors have opposed the 'tree of analysis' method (for a frontal assault please read Tisdall's interesting book *Improve Your Chess Now!*), they have generally acknowledged the importance of candidate moves (except perhaps for Tisdall, who at first agrees with Dvoretsky that candidates need to be selected, though not necessarily immediately, but then a few pages later expresses deep reservations about the whole concept).

In this book we shall talk about *candidates*, which covers both candidate *moves* and candidate *ideas*. Kotov wrote that he wanted to teach chess players to think like machines, but it can easily be stated that we do not really think in moves like a machine, so much as we think in ideas. Moves are just moves to us, but ideas are pockets of meaning that makes sense. The following example illustrates this.

Karpov-Serper
Dortmund 1993



White to play.

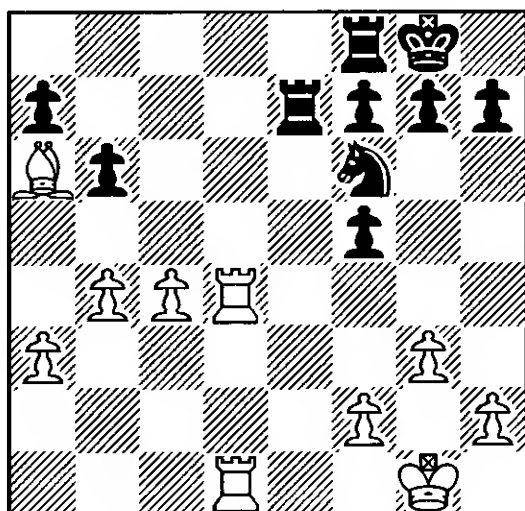
Many candidates can be selected for White in this position, but the move 23 Nf5 would not make sense unless you see the idea behind the knight sacrifice. Most experienced players would spot the idea of sacrificing the knight first and only afterwards find the reasoning behind it. Abstract ideas like overloading and the weakness of the back rank would not matter, but a quick scan over all possible meaningful moves would pick up on the knight sacrifice immediately, and the consequences of it would soon become apparent – and once these consequences are clear, it is hard to imagine that White should play any other move, so probably Karpov

played it rather quickly and focused his energy on the resulting endgame.

23 ♘f5!

Black cannot allow the knight to come to d6, so the following endgame cannot be avoided.

23...exf5 24 ♔xe7 ♚xe7 25 ♙xb7 ♜f8 26 ♙a6!



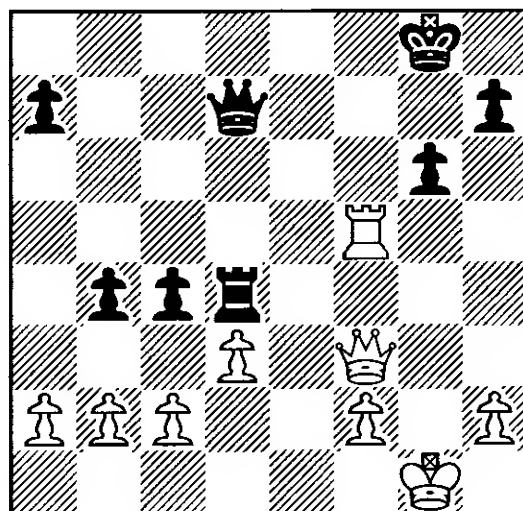
The tactics are now over and White has a clear advantage. With his last move White keeps control over the c-file and the promoting square for his c-pawn. So now, with a strong bishop vs. knight, with more active rooks and an extra pawn on the queenside, White had no problems converting his advantage into a full point.

26...g6 27 c5 bxc5 28 bxc5 ♜c7 29 ♜c1 ♜e8 30 c6 ♙g7 31 ♙f1 ♜e5 32 ♙b7 ♜a5 33 ♜cd1 ♜e5 34 ♜d7 ♜e7 35 ♜xc7 ♜xc7 36 ♜d8 ♜e7 37 f3 g5 38 ♜a8 g4 39 fxg4 fxg4 40 ♜xa7 ♘d5 41 ♜a4 ♘e3+ 42 ♙g1 ♙f6 43 ♜f4+ 1-0

You could argue that 23 ♘f5 is a candidate move, but also, and just as important, that it is a part of a candidate idea. Of course you can also argue that the move makes no sense without the exchange of queens and the potential for a back rank mate, but in many situations you can have a move which carries more than one idea. In that case we can really talk about candidate ideas. The following is such an example.

Breder-Aagaard

Budapest 2002



What is White's strongest continuation?

Black has had an off-day and has ended up a pawn down with only a little counter-play. White should now try to find the best way to neutralise this play. To do so he will need to start selecting possible moves. 1 ♜a8+ forces 1...♜d8, after which White seems to have little choice but to exchange queens. This is certainly one candidate. (Note that 1 ♜a8+ is connected to a few forced moves, and hence there is little point in talking about a candidate *move*, but more a candidate *idea*. For the sake of simplicity, I will use the expression *candidates*, since for the practical player there is no difference.)

The alternative to 1 ♜a8+ is 1 ♜f8+, another forcing move. After this Black has only one legal move, 1...♙g7, but then 2 ♜f6+ ♙h6 does not seem to advance the white agenda. My opponent thought for some time and came up with the wrong solution.

1 ♜a8+?

There are of course many ways to solve this position, but the simplest is to list candidates. In the game the critical position is that after (1...♜d8 2 ♜xd8+ ♜xd8) 3 ♜f3, when the opponent's counter-chances should be taken into consideration. But first we should do our job of selecting candidates for calculation, as this often saves us time.

The second (and better) idea in the position is to play 1 ♖f8+ ♔g7 2 ♜b8!. This escaped my opponent's attention completely. He only calculated at the tempting 2 ♜f6+, but did not see any purpose to it. Had he taken the time to look for other possibilities I am sure he would have found 2 ♜b8!. The deadly threat of 3 ♜b7 is so terrible that Black will have to hurry into a rook endgame with 2...♜g4+ 3 ♜xg4 ♜xg4+ 4 ♔f1.

We now have two candidates which can be calculated, but actually we do not need to. It is obvious that White is worse off with a passive rook on f3 in the 1 ♜a8+ line, than with an active rook on b8 in the second line. This kind of comparison can often save us time in evaluation and calculation. Whether White is winning or not, it is obvious that the second line is preferable, and for the practical player that is all the information required.

But, in the game White played 1 ♜a8+.

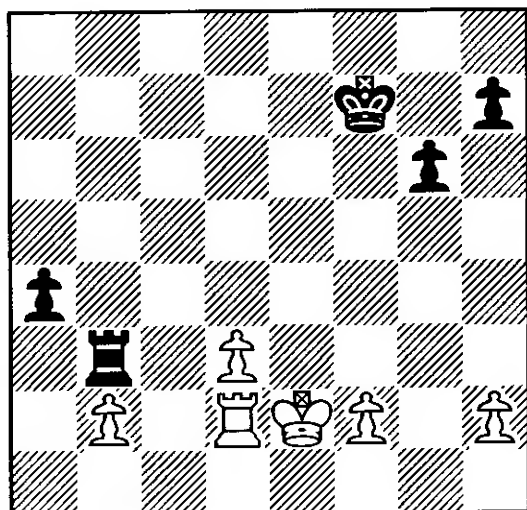
1...♜d8 2 ♜xd8+ ♜xd8 3 ♜f3 b3!

I am not sure if White had overlooked this move. He probably did, which is just another reason why he should have focused on the starting position and found the solution to the problem.

4 axb3 cxb3 5 cxb3?

5 c3!? was worth considering, although after 5...a5 6 d4 a4 7 ♜e3 ♜c8 Black should have sufficient counterplay.

5...♜d4! 6 ♜e3 ♔f7 7 ♔f1 ♜b4 8 ♜e2 ♜xb3 9 ♜d2 a5 10 ♔e2 a4



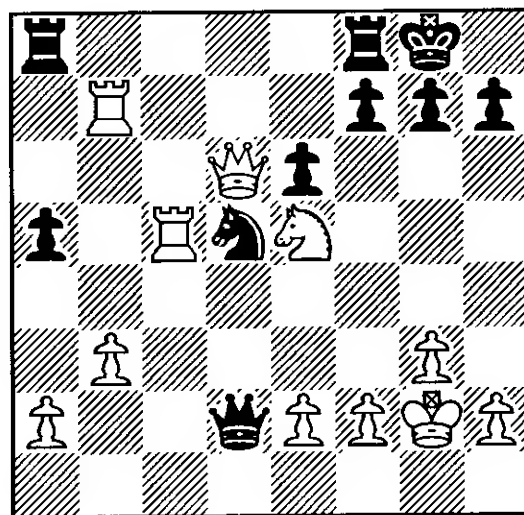
Black has a very active rook vs. a passive rook. The extra pawn does not matter much.

11 ♔e3 ♔e6 12 ♔d4 g5 13 ♔e4 h6 14 f3 ♜b4+ 15 d4 ♜b3 16 ♜f2 ♔d6 17 ♜c2 ♜b8 18 h3 ♜e8+ 19 ♔d3 ♜f8 20 ♔e3 ♜e8+ 21 ♔d3 ♜f8 22 ♔e3 ♜e8+ 23 ♔f2 ♜b8 24 ♔e3 ½-½

The ability to select candidates is probably the most important for a chess player. Strategy, positional rules and concepts are important too, but if you overlook simple tactics, you will not be able to use the others for much. To put it very simply: the things you overlook in your long calculation will seldom be as important as the move you overlooked at the start.

S.Webb-Aagaard

Sweden 2002



Play White against your computer from this position.

This position arose between two disgustingly outdated IMs and authors in the Swedish League 2002 third round. The end was played in severe time trouble and the tactical possibilities never really surfaced before the game was put under the microscope of home analysis. Please note: *I recommend that you try to play this position with White against a computer.* The idea is not to calculate deeply, but to make good moves. White's position is winning, but not without a lot of difficulty. The

moves required to win this game will not be found in long calculations, but in a lot of short variations and through making good moves on each and every move.

Before we turn to the game there is some valuable advice I would like to present you with. The first is simple.

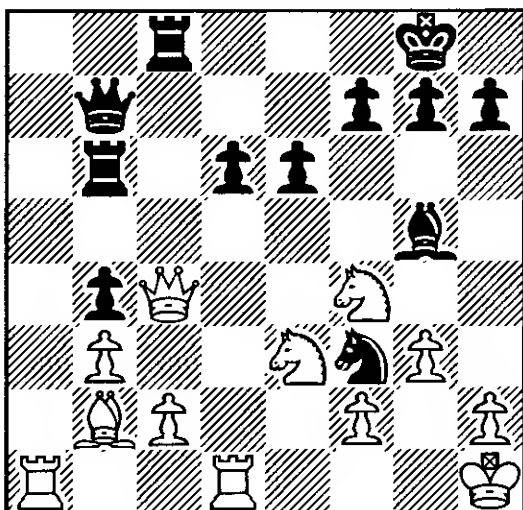
Look, don't think

Whenever I think I am doing something really clever it is usually just plain stupid. – Esben Lund.

One the greatest dangers in chess is that our brain gets in the way. We might sometime have convinced ourselves that we are intelligent creatures, but really we should not fall for it. We are not that smart. Often the only thing our brain does is to cloud our eyes and make it impossible for us to see what is really going on in the position in front of us. The following example is taken from the new version of John Nunn's first collection of his own games, *Secrets of Grandmaster Chess*, in which the experienced grandmaster and writer presents some of his early games.

Nunn-Najer

Teesside 1974



Don't think, look!

Here it is tempting to start calculating the different lines after 28 ♖f1 ♗e1+ 29 ♗fg2 ♗xc2 30 ♗xc2 ♖xc2 31 ♔d4 ♖bc6 32 f4 and

the attack is repelled, though some play still exists. Actually this might be what you would end up playing no matter whether you picked all the candidates or not. But Nunn is and always has been a very aggressive player and here he came up with a nice combination.

28 ♖a7!

This first move should be spotted as a candidate move, but as we shall see on the next move, candidate ideas are just as important a concept.

28...♗b8 29 ♖xf7!

Nunn gives this an '?' in his book, unjustly, as we shall see below. Here we are really talking about candidate ideas. White could either have come up with this highly original rook sacrifice, or he could have foreseen the opportunity to exploit the back rank with the following sequence: 29 ♖da1! ♖xc4 30 ♗xc4 and White is winning. Black cannot defend his back rank so he is simply a piece down in the resulting endgame after he loses his own queen. One line could go 30...d5 31 ♗xb6 ♗xb6 32 ♖1a6 and wins.

It is not really fair to talk about 29 ♖xf7 and 29 ♖da1 as candidate *moves*. They both include certain ideas and just seeing the moves themselves proves little. If you do not spot the idea behind 29 ♖da1, which is the simplest win in the position, then you have no chance of actually including it in your list of candidates. You simply see that 29...♖xc4 wins your queen and you move on. Actually, you probably would not see 29 ♖da1 at all, unless you are well trained in finding *surprising* candidate moves.

29...♗e5

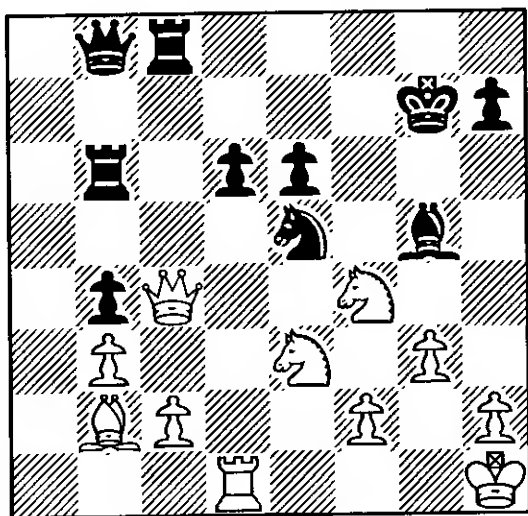
This seems forced, even though it is objectively no better than alternatives, e.g. 29...♖xc4 30 ♖xg7+ ♗h8 (if 30...♗f8 31 ♗xe6+ ♗e8 32 ♗xc4 and White's position is completely overwhelming – the threats are so many that it seems they can hardly be counted!) 31 ♖b7+ ♖c3 32 ♖xb8+ ♖xb8 33 ♗xe6 and White is a few pawns up.

30 ♖xg7+!

White of course had this in mind.

30...♙xg7

30...♙h8 31 ♖xg5! ♖xc4 32 ♘xc4 and Black's position is collapsing.



Don't think, feel! – Bruce Lee.

It is easy to see the knight fork and then start to calculate the complex lines after 31 ♘xe6 ♙g8!. But if Nunn had stopped for a moment and actually just looked at the position, he would undoubtedly have spotted a far stronger continuation.

31 ♘xe6+?

31 ♙xe6! is more or less winning on the spot. There is no way for Black to defend his king against all the intruding white pieces. In the position White is threatening ♘f5+, ♙g4, ♙xe5+ and ♖xd6. Against so many threats there can be no defence, as analysis of the position proves: 31...♖e8 (or 31...♙b7+ 32 ♘fg2 ♙f8 33 ♖xd6 ♖xd6 34 ♙xd6+ ♙e7 35 ♙xe5 and wins; actually it is a more a slaughter house than a chess game here) 32 ♙xe5+ (the most human approach; 32 ♙f5 and 32 ♙g4 also wins easily) 32...dxe5 33 ♖d7+ and White wins, as after 33...♙h8 there is a simple combination with 34 ♘g6! hxg6 35 ♙h3+ and mate follows.

Why did Nunn overlook this both in the game and in his later analysis? In the game there could have been all kinds of reasons: time pressure, assumptions, bad form, or whatever. In the preparation of the book it is

another matter. No computer program would miss this move for the world, and yet Nunn still does not include it in his book (and Nunn is very famous for his use of computers in his writing). The reason is that he did not stop to think here. Instead, the text move is so obvious that it is easy to play it without thinking. It is a check, a fork even. By comparison the queen is not doing anything directly on e6, there is no immediate threat to the black king or queen. But if you do stop to think for a moment, then you will quickly see all these great threats and start to calculate. And before we can calculate, we must realise whether we have a choice or not.

31...♙f6?

This is just reckless. Black needs to get his king into safety and this can only be done with 31...♙g8!, when the king and queen might be on the same line, but White cannot exploit it. After 32 ♙e2 ♙xe3 33 fxe3 ♙b7+ 34 e4 ♙d7 Black is only slightly worse. The reason for Black's mistake is likely to be time trouble, though Nunn does not mention anything thereof in his book.

32 ♙xe5+!

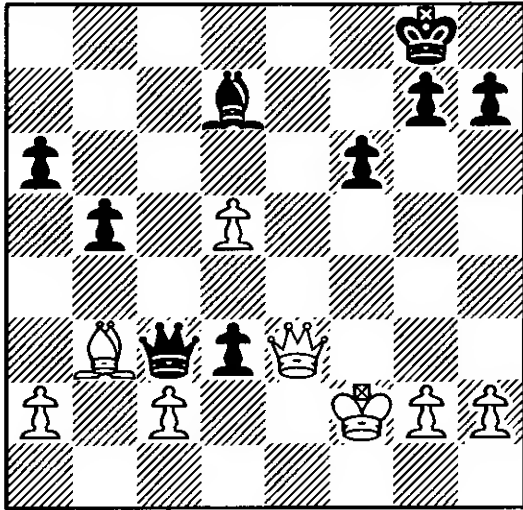
It seems that Black somehow missed this, but even so 32 ♘c7!? is also a winning move. The attack is simply too strong.

32...dxe5 33 ♘d5+ ♙xe6 34 ♙g4+ ♙f7 35 ♘xb6 ♖d8 36 ♙f5+ ♙e8 37 ♙e6+ ♙e7 38 ♖xd8+ ♙xd8 39 ♘d5 1-0

John Nunn is a great writer and has won the British Chess Federation's 'Book of the Year' award many times, including both books of his best games (1987 and 1994). He is especially renowned for the high level of analysis he presents in his books. Nevertheless I managed to spot another – and very similar – mistake in his analysis in his latest work *Learn Chess Tactics* (a good book for beginners on basic tactical ideas in chess). It should be said that I am probably the only one who will ever notice this mistake, and that for good reason...

H.Danielsen-Aagaard

Taastrup 1999



In this position I played an obvious move, which is easy to find for an IM who has solved many combinations in his time.

29...d2!

It always feels good to sacrifice the queen, and even better to under-promote a pawn as well. But the combination is so simple that it is really no combination at all.

30 d6+ ♖h8

Here White used a good deal of time before realising that he had nothing better.

31 ♖xc3

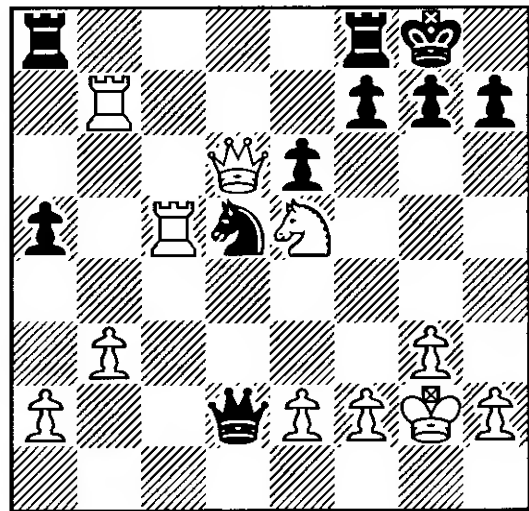
31 ♖e7 ♖d4+ 32 ♖g3 ♖g4+ 33 ♖f2 ♖f4+ 34 ♖e2 ♖g4+ and mates is one line that Heini was forced to analyse. 31 ♖b6 d1♙+ 32 ♖f1 ♖e3+ 33 ♖f2 ♖d2+ 34 ♖f3 ♖xg2+! 35 ♖xe3 ♖g1+ was another possible line. All in all nothing looks alright for White.

31...d1♙+ 32 ♖e2 ♖xc3+ 33 ♖d3 b4 34 ♖d4 g5 35 ♖c5 ♖e4+ 36 ♖b6 f5 37 ♖d5 ♖xd6 38 ♖c7 ♖e8+ 39 ♖xd7 ♖f6+ 40 ♖e6 ♖xd5 41 ♖xd5 ♖g7 42 ♖c4 a5 43 a3 bxa3 44 ♖b3 f4 45 c4 g4 46 c5 ♖f7 0-1

Nunn describes this game in his own words but he appears to be of the belief (as I was for years) that White fell victim to a classical combination. It is a little difficult to understand how he could make this mistake, but the explanation is probably that he looked at it without a computer program.

I had thought about using the example myself in an article but when I rechecked the variations I realised that White had a major improvement. Go back and see if you can find the only defence instead of letting me do all the work! (Solution on page 26)

Let us return to Webb-Aagaard (page 20).



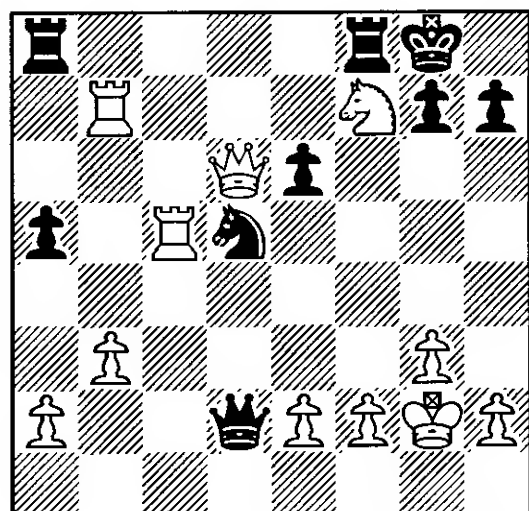
White should start with

28 ♖xf7!!

This is the only serious candidate. The method of elimination should make this clear. Webb played this with only five minutes left on his clock, seeing lines like:

a) 28...♖xe2 29 ♖e5! and White will enter the endgame a full pawn up with no doubt about the result, e.g. 29...♖xe5 30 ♖xe5 ♖f5 31 ♖d7 and Black is out of ideas.

b) 28...♖xf7 29 ♖xe6 which just wins; the tricky 29...♖f4!? is best refuted by 30 ♖xf7 ♖xf7 31 ♖xd5 with three extra pawns.



What is the only defence to this kind of aggression?

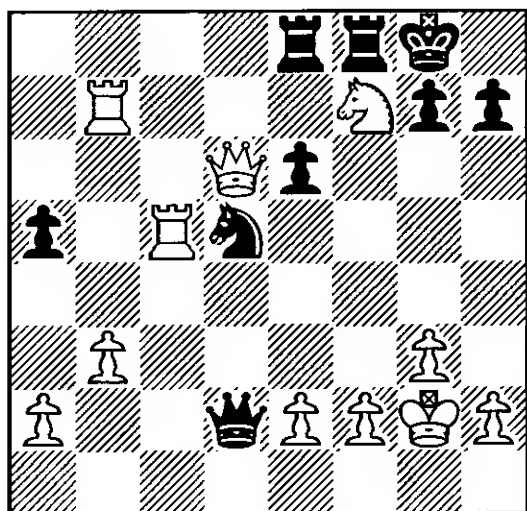
28...♖ae8!

The chess equivalent to turning the other cheek. It is clearly the only move, as the alternatives all lose directly. For a practical player this is a nice move to find. Under pressure, losing another pawn and clearly close to complete failure, he finds a move that at least keeps the engine running for a while. Now White simply panicked and was not able to use his limited time to find a playable continuation. But still, giving up the rook gives no chance at all of a playable position, and the practical chances are also close to nil. So it would have been better to choose one of the alternatives and then see if anything turned up.

29 ♖xd5?? ♜xd5+

From here on the game is over.

30 ♜xd5 exd5 31 ♘g5 ♖xe2 32 ♘f3 ♖xa2 33 ♖d7 ♖b2 34 ♖xd5 ♖xb3 35 ♘g5 ♖a8 36 ♘e6 ♖b6 37 ♘c7 ♖c8 38 ♘b5 a4 39 ♘d4 ♖a8 40 ♖d7 a3 41 ♘f5 a2 42 ♖xg7+ ♜h8 0-1



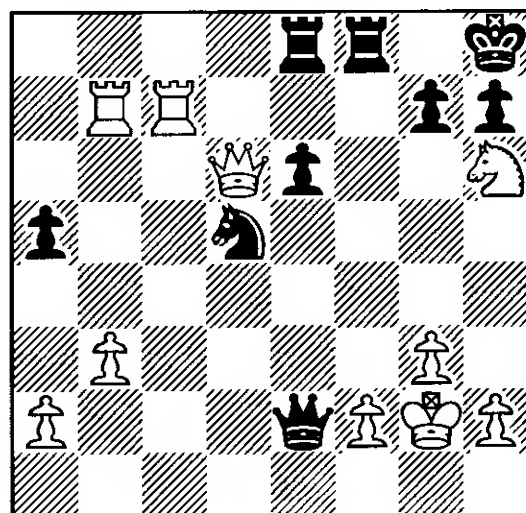
How should White have continued?

This is a truly complicated situation and it takes some time to calculate all the possibilities. I have personally listed three candidates beyond the move Simon played in the game: 29 ♜e5, 29 ♖cc7 and 29 ♜d7. The right thing, I believe, is to calculate them one at a

time and come to conclusions as quickly as possible. Remember, we calculate not to indulge ourselves in variations, but to find the best move as quickly and as reliably as possible. Pseudo-thinking with concepts and ideas will bring you little satisfaction here. You need to be concrete and to find the relevant variations.

Not too relevant is the piece sacrifice 29 ♜e5? ♖xf7 30 ♖xf7 ♜xf7 31 e4 when it is hard to believe in the white attack, and for this reason alone it is possible to disregard it as a serious candidate. The combination also has an easy tactical refutation in 31...♜e2! 32 ♜d4 ♘f6 and Black is close to winning.

More persistent is 29 ♖cc7!? ♜xe2 30 ♘h6+ (but not 30 ♜e5 ♜xe5 31 ♘xe5 ♘xc7 32 ♖xc7 ♖c8 and Black is winning) 30...♜h8



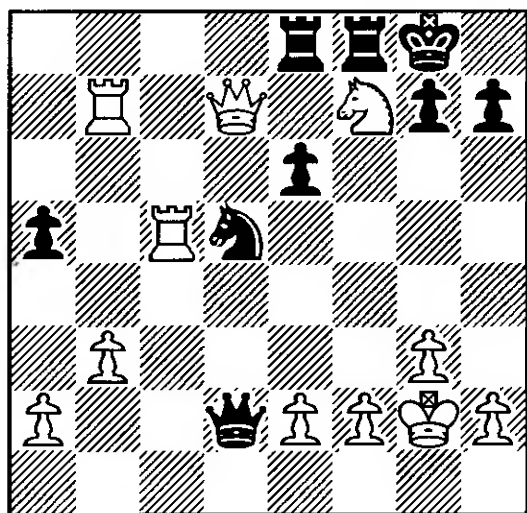
White to play!

This position could easily have been foreseen as well. A closer look would have revealed that White is actually in trouble! If he plays 31 ♘f7+? then 31...♖xf7 wins on the spot. However, there is a nice resource in 31 ♜xf8+!! ♖xf8 32 ♘f7+ and White has perpetual check because of the various rook mates.

It should not take too long to find the right first move.

29 ♜d7!

Now Black has to be careful, as after 29...♖e7 White will surely answer 30 ♖xd5!! ♖xd7 31 ♖dxd7 ♜xe2 32 ♘h6+ ♜h8.



Black to play – Candidates!

Afterwards, when I was showing the game to a few friends, GM Djurhuus suggested that White would be able to make a draw like this, but actually he is more or less winning instantly with the defensive/aggressive move 33 f7! which leaves Black in serious trouble. Black will be able to offer resistance after this move, but it should not be too difficult to work out that he will be running around like a wounded animal for the rest of the game, if White plays correctly.

Therefore Black's best defence is:

29... d4!?

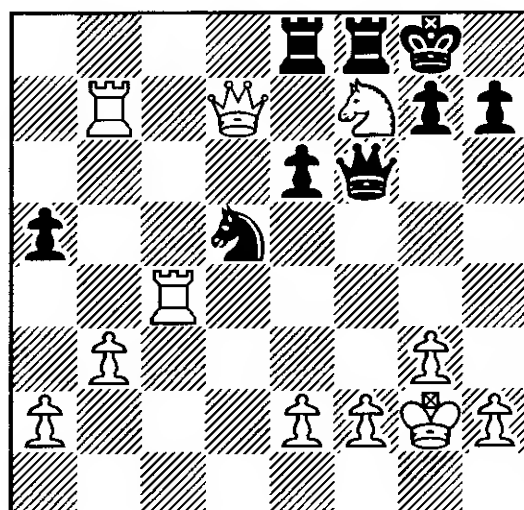
White now needs to find his candidates again. But first things first. Should White have predicted this move? I am not sure. He should have seen it, but also that he would have a wide choice afterwards and that Black has not solved his problems immediately. If we compare this with the previous variations it is obvious that only after 29 d7 can White play for a win, and once we have assured ourselves that Black does not have an easy way to neutralise the initiative, we can play the move without wasting time. Here I have analysed two continuations.

a) **30 c4 f6** and now:

(see following diagram)

a1) 31 a4 a8 32 e4 e7 33 e5 xf2+ 34 h3 f1+ 35 h4 g2 36 xe7 xh2+ 37 g4 h5+ 38 g5 xg3+ 39

xh5 xe5+ and Black wins.



It is all about finding the right path out of the jungle!

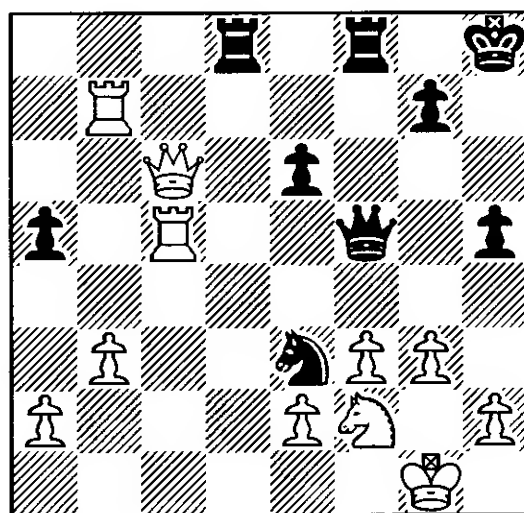
a2) 31 b5 d8!? 32 xd8 xf2+ 33 h3 xd8!? 34 g4! f1+ 35 h4 f6+ 36 h3 with a draw.

So 30 c4 does not provide us with any advantage. Stronger is:

b) **30 h6+! h8** and now White has the following possibilities:

b1) 31 f5 e4+ 32 g1 b1+ drawing.

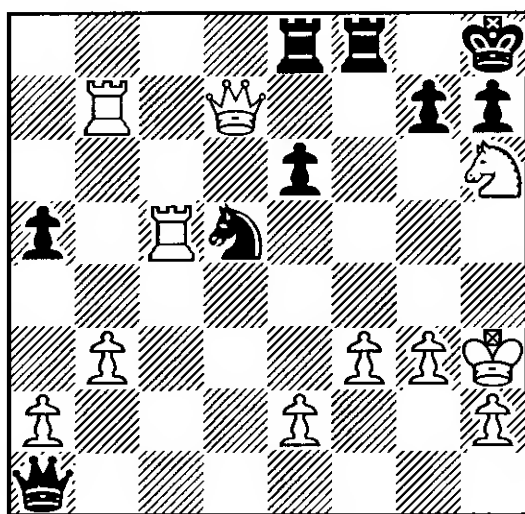
b2) 31 h3!? f6 32 g4 g6 33 f3 and White remains a pawn up with good chances. Or so it seems, but in fact Black has a fantastic route to equality: 33... d8 34 c6 h5 35 f2 f5+ 36 g2 e3+ 37 g1



Black to draw!

37... h3!! 38 hx3 d1+ 39 f2 g4+ etc. An amazing and original drawing idea!

b3) **31 f3! ♖b2** (after the forcing 31...♗e3+ 32 ♔h3 ♖f6 33 ♗g4 ♗xg4 then 34 ♔xg4! and White wins) **32 ♔h3! ♖a1!** (32...♖f6 33 ♗g4 wins) and now:



33 ♗f7+! (if 33 ♖c1 ♖f6 34 ♗g4 ♖g5 35 ♔g2 ♗d8 36 ♖c6 h5 37 ♗f2 ♖d2, while 33 ♖xd5 exd5 34 ♗f7+ ♔g8 35 ♖xd5 ♖f6 36 ♗g5+ only leaves White with a clear advantage, but at least now we have choices) **33...♔g8 34 ♖xa5 ♖f1+ 35 ♔h4 ♖a1 36 ♖aa7 ♖f6+ 37 ♔h3 ♗e3 38 ♖d3 ♖xf7 39 ♖xe3** and White will win.

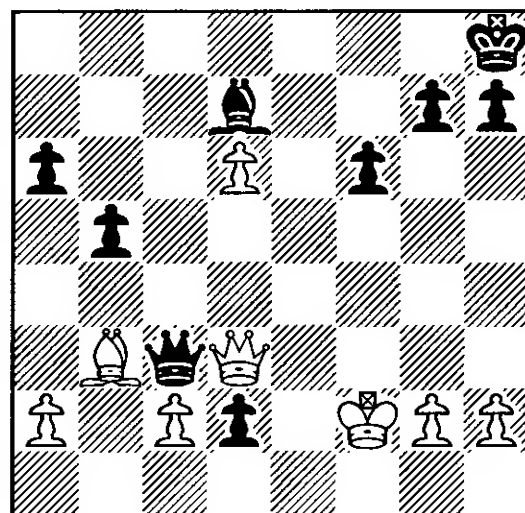
Of course these lines are deeply complicated, and no one in the world would be able to calculate them all from the starting position. But nobody in their right mind would try. The main point here is that most moves can be found without calculating that deeply. All that is needed is to compare a few variations, disregard any garbage lines we see, and find a few strong moves at critical moments. If you have no training in finding candidates then it will be difficult for you to find these moves, and the odds are that you will not be able to solve the problems in the position.

The reason why we need to train ourselves to actually look at the board is because we find most chess moves in the same way as we solve other problems in life. As a species we are gifted with several tools for decision making, one of which is pattern recognition. This means that we are able to make very quick

decisions in all kinds of situations by comparing them with previous experiences, which gives us a qualified line of action almost for free. The problem is that, although this is very practical in most of life's situations, it is not necessarily the best way of finding the best move in a chess position. *Chess analysis cannot be done fully without paying attention to the peculiarities of the position.* You need to concentrate on seeing the situation of the game as it actually is. And how is this done? The answer is simple...

Calculate more slowly

If we return to the position from Danielsen-Aagaard on page 23, we see that after 29...d2 30 d6+ ♔h8 White has one move that keeps the game going: 31 ♖d3!!.



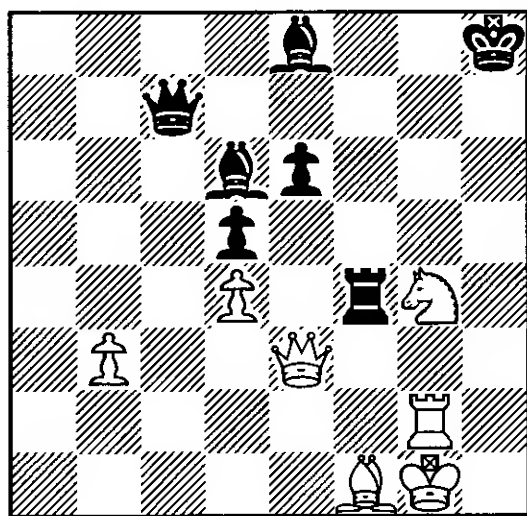
This move does not completely save the game, but for the time being at least Black does not have a forced win. For White it would have been sufficient to calculate half a move ahead, no more, and then appreciate the consequences. This can of course be difficult, but in such a position the most important thing is not to give up hope. Once White had played 31 ♖xc3 the game was over and he might as well have resigned. So why not scan the position for an additional idea first? As we shall see in the section dedicated to defence (see page 86), a position can be very unpleasant and yet contain many resources. In fact most people make mistakes

when faced with persistent defence. It is extremely rare for us to see games, even between two grandmasters, in which a player makes no mistake. The only occasions are when one plays well below standard and makes it easy for the opponent.

The following example is from one of the all time best defenders, Emanuel Lasker, who was a great tactician. His style of play did not incorporate many combinations as such, but there are other levels of tactical chess.

Marshall-Em. Lasker

New York 1924



White to play and win.

Can you work it out all the way to the end?

Here Marshall did not see Black's threat and went for **44 ♖xe6?**, which was brutally met by **44...♖xf1+!** **45 ♔xf1 ♖b5+** **46 ♔e2** (there is nothing better; after **46 ♔f2 ♖c2+** Black makes a draw) **46...♖xe2+** **47 ♖xe2 ♖f7+** **48 ♖f2 ♔g7**. This endgame is nominally better for White with the extra pawn, but it is not easy to make progress, and Lasker drew it without much trouble.

Various other continuations also prove insufficient for White on similar accounts, e.g. **44 ♖h2+?** **♔g7** **45 ♖xe6?! ♖xf1+** **46 ♔xf1 ♖b5+** and Black escapes with a draw once again. Worse is **44 ♖h6?** when **44...♖xf1+!** **45 ♔xf1 ♖b5+** is terrible for White. After **46 ♔g1 ♖f4** Black is winning, and **46 ♔e1 ♖f4**

47 ♖xe6 ♖c1+ **48 ♔f2 ♖f1** mate does not seem to be an improvement.

There are other continuations that prove insufficient for White on similar accounts; e.g. **44 ♖h2+?** **♔g7** **45 ♖xe6?! ♖xf1+** **46 ♔xf1 ♖b5+** and Black escapes with a draw once again. Even worse is **44 ♖h6?** when **44...♖xf1+!** **45 ♔xf1 ♖b5+** is terrible for White: after **46 ♔g1 ♖f4** Black is winning, and **46 ♔e1 ♖f4** **47 ♖xe6 ♖c1+** **48 ♔f2 ♖f1** mate is not exactly an improvement.

I do not know when or where the right way to win was first indicated, but I found it in my editor Byron Jacobs' excellent little book, *Analyse to Win*, which I can definitely recommend to anyone looking for positions for training in calculation. The following win was found by all my pupils (around 1800-2000 rating) with 20 minutes on the clock.

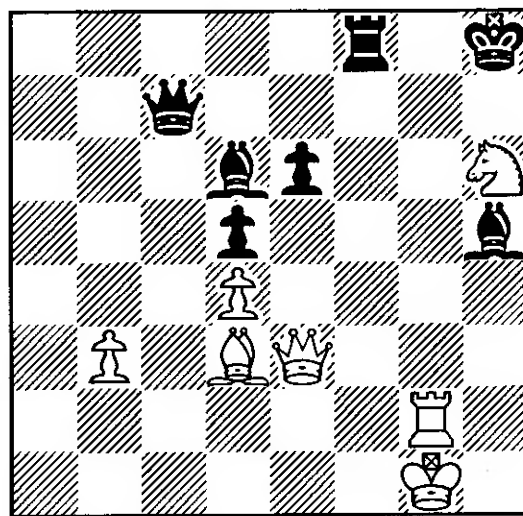
44 ♖d3!

This move has a double function. First of all it pre-empts the tactics with **44...♖xf1+!** which the kids got really tired of looking at. Secondly, it sets up a serious threat of **45 ♖h3+**, which Black simply cannot allow. So his response is forced.

44...♖h5 **45 ♖h6**

The natural way to proceed. Black has no counterplay, so White threatens with **46 ♖g8** mate and thereby forces Black's next reply.

45...♖f8



How to finish off the opponent?

Here it is important to calculate slowly in order to grasp the finesses. Training in finding candidate moves is also important. Byron continues 46 ♖g5, writing ‘White suddenly has the attractive threats of 47 ♖g8+ and 47 ♖f6+ as well as the more mundane 47 ♖xh5. Not a difficult continuation, but tricky enough to cause Marshall to lose his way.’

I would like to mention that I have not been able to find any other mistakes in Byron’s book from the examples I have been working with. But here we shall see what 12-year old Alex Hansen decided to play before we do anything else, as it impressed me.

46 ♜f7+!

This is certainly more forceful, and Black cannot do anything to defend himself.

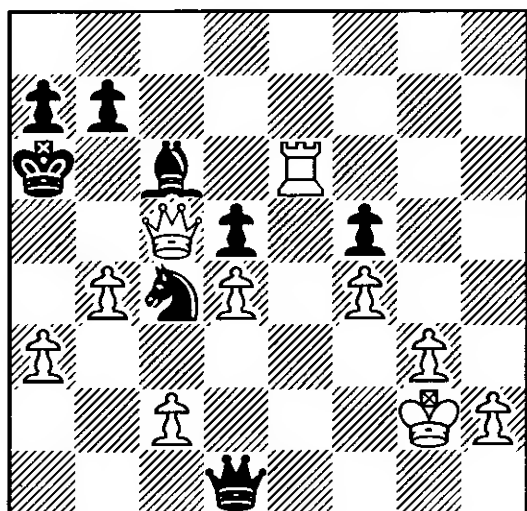
46...♙xf7 47 ♖h6+ ♜h7 48 ♜xh7 ♖xh7 49 ♖f6+ and mates.

This was done in a training session where the two other boys found 46 ♖g5 and were praised therefore. But when I went home I began to have doubts about the correctness of the explanation above. Maybe it was not as simple as this, and maybe Alex’s win was not just an alternative, but actually the only way to decide the game in White’s favour.

Before we turn to what is wrong with 46 ♖g5 I want to show you another position.

Korchnoi-Vaganian

Skelleftea 1989



Black to move. How can he escape the threats?

In spring 2004 Mark Dvoretsky was visiting Copenhagen to give a seminar on Creativity. During his visit we exchanged our views on a lot of topics, one of them being exercises. We agreed that there were no good books on candidate move exercises, which confirmed to me that the one I was writing was indeed relevant. When the most successful trainer in the world happens to think the same as you about something, it is quite reassuring.

Later in the seminar, participants had to solve six exercises on candidate moves/ideas, and the current position was among them. I quickly solved the other five exercises and in the end found myself stuck with this one. I tried different ideas, but after 5 or 6 minutes I had not managed to come up with anything better than the move Vaganian played.

35...♖xc2+? 36 ♜h3 ♖a4 37 ♜h4

when White had a winning endgame, which Korchnoi indeed won.

When I had decided that I did not want to end up in such a position, I turned to a method I sometimes use to slow down the pace of my calculation, and make sure that I am not overlooking anything. *I calculated all legal moves.* When I told Mark about this he was not impressed, and I can understand why. It seems a daft way for a human to look at a position; a computer would do it this way, but would do it a million times more quickly.

But sometimes, when you are certain you are missing something, or when you would have to resign if you cannot find a resource, this method actually makes more sense than it would at first seem. So I analysed knight moves under the heading ‘♞-anywhere... no, 36 b5+ and White wins’ (though 36 ♖a5 mate is stronger!). I calculated most queen moves in the same way. King and bishop cannot move, which leaves only the b-pawn. 35...b5 36 ♖xc6+ ♜b6 37 ♖c8 mate is not too reassuring either. So by elimination of all other legal moves, I ended up with just 35...b6 36 ♖xc6 and 35...♖xc2 as candidates.

I had noticed 35...b6 earlier but had not

seen how to proceed. What I achieved with this bonehead way of approaching the position was to force myself to look for something where I had not seen it before. So having eliminated all other candidates, I eventually could not avoid finding the solution.

Incidentally, at the time Korchnoi did not see anything wrong with 35...♖xc2+, but later he (or perhaps his computer) came up with the brilliant answer: 35...b6!! 36 ♖xc6 ♜e3+ 37 ♜xe3 ♖f1+ 38 ♜xf1 and stalemate.

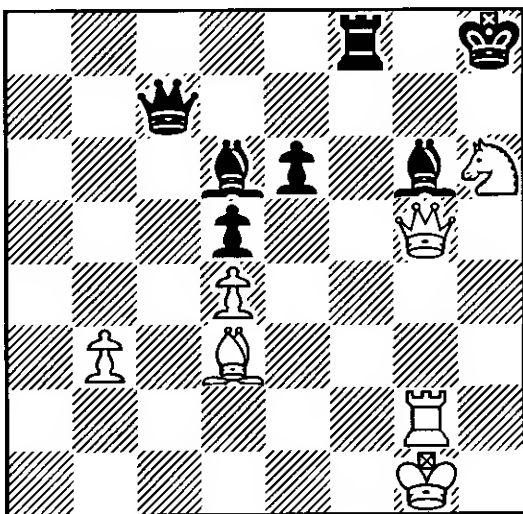
It is of course easier to solve such an exercise when you know that a solution exists. Nevertheless, this method has proved useful to me at times. In my game against Brynell (see page 94) I used it to check certain parts of my rather elaborate calculation on move 19, and discovered some possibilities which I would otherwise have missed. Obviously this method has its limitations (actually just one: it takes a long time), but sometimes it can be a good way to gain control over your own thoughts instead of repeating the same ideas.

I could have used this method to find a defence against the intimidating 46 ♖g5 (see Marshall-Lasker above), but in fact it was my computer program which indicated the opportunity for Black to create problems, when I inserted the position into my database.

46 ♖g5?!

is met by an unexpected counter-strike:

46...♙g6!!



How should White continue here?

a) 47 ♙xg6 ♙f4 48 ♜f7+ ♜g7 49 ♖h4! (49 ♖h5 allows Black an immediate draw with 49...♖c1+ 50 ♜f2 ♖e3+ etc.) 49...♖c1+ 50 ♜f2 ♖d2+ 51 ♜f3 (the only way still to play for the full point; 51 ♜f1 ♖d1+ 52 ♖e1 ♖f3+ 53 ♜g1 ♙e3+ is another draw) 51...♖e3+ 52 ♜g4 ♜xg6 53 ♜h8+ ♜xh8 54 ♖xh8 ♜f7 55 ♖h7+ ♜f8 56 ♖g6 ♙d6 57 ♖f6+ ♜e8 58 ♜f2 ♙e7 59 ♖f4 ♖xb3 and despite the extra exchange it is not obvious that White has serious winning chances. The position is obviously better for White, but whether the advantage is decisive or not hard to estimate.

b) 47 ♜c2 (I like this move more, but White is still not winning as easily as before) 47...♖g7! 48 ♖xg6 (48 ♙xg6 ♙f4 49 ♜f7+ ♜xf7 50 ♖h5+ ♜g8 51 ♖g4 is only slightly better for White) 48...♖xg6+ 49 ♙xg6 ♜g7 50 ♜f7 ♙f4 51 ♜g2 ♙e3+ 52 ♜f1 ♙xd4 53 ♙h5+ ♜f6 54 ♜h6 and White has a piece more in the endgame. But with only one pawn left, who knows? There are many drawn endgames which can arise out of the blue.

Maybe White still has a win after 46 ♖g5?!, but it requires an enormous amount of accuracy just to reach a position where he can play for it. Since Marshall fell already over the first hurdle, playing 44 ♖xe6?, we can safely assume that he would not have won the game against Lasker that day, if he had played 44 ♙d3!, but then continued with 46 ♖g5?!

Of course 46...♙g6! is a very surprising move, and I do not think any pupil of mine has been able to find it as yet. But utilising the techniques of thinking slowly and of eliminating all legal moves as a last resort, they should be able to do so.

With these words I think we are done talking about candidate moves and seeing instead of thinking, and can move on to heavier questions, such as the calculation of longer lines.

CHAPTER THREE

When is the right time to Calculate?

Do not calculate complicated lines before you are absolutely sure it is necessary. – Mark Dvoretsky.

Calculation is only one part of chess and, although central and crucial for a player's development, it is not the only skill that needs to be acquired. Just as important are understanding of positional factors and a good technique – but both require the support of calculation. We can outplay our opponents positionally and then fail to win again and again, because we do not sense the critical moment, the moment when we have to change our frame of mind from logical and conceptual thinking to actual calculation.

In a standard chess game the two players start by repeating a few opening moves from a textbook, database or prior knowledge. At some point one of the players will part from theory and have to think for himself. This is the first critical moment, and a good place to invest a lot of time. In the game below we can see how moves 9 and 10 were fairly obvious for White. At move 11 he spent a lot of time finding a way to organise his forces and prepare for the middlegame. If Black had invested the same time on move 9 he would perhaps have played differently and the game would have been more even. As it was, he remarked after the game that he did not think

it was possible to get such a bad position after 15 moves. The point was that he did not solve the problems in the opening himself, but White did, and was soon able to benefit.

Such a problem cannot be solved through calculation alone; it requires a different kind of positional depth and understanding. This is why many young people often collapse right after the opening. They do not know how to organise their pieces themselves. In this way they are like computers, who see all tactics, but cannot easily evaluate long term factors.

Once the manoeuvring after the opening is completed, there comes a moment when one player is better prepared for a confrontation between the two armies and should therefore seek it without hesitation. At this moment calculation is an absolute necessity. Logic and general assumptions can only take you so far. This is what some theoreticians choose to call the critical moment.

In the following game White managed to solve the positional problems in the opening better than Black, but later, when it was time to calculate, he made some inaccuracies, which brought the win into danger.

Aagaard-Østergaard
Helsingør 2003
Scandinavian Defence

1 e4 d5

My opponent said after the game that he got the impulse to try something new. I can understand that – but the Scandinavian Defence...?

2 exd5 ♖f6

2...♙xd5 is the best move here according to theory and also according to my own practical experience.

3 d4 ♘xd5 4 ♘f3

This is rather harmless but still gives White a good chance of getting a better game. When confronted with a sideline (such as the Scandinavian Defence) even strong players often play too cautiously and therefore do not get all the advantage they could; but on the other hand they avoid walking into nasty traps and snowstorms of blurring tactics, while still securing just as good chances for an advantage as they would have in a normal opening system.

4...g6 5 ♙e2

5 c4 was objectively stronger.

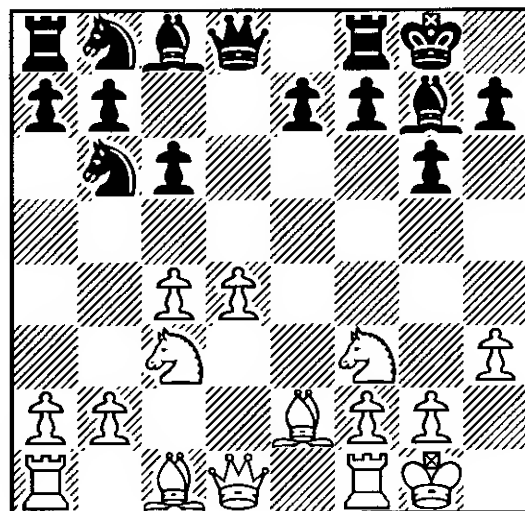
5...♙g7 6 0-0 0-0 7 c4 ♘b6 8 ♘c3 c6!?

This move is actually not as bad as I initially thought when Jens played it, but Black should utilise its advantages creatively.

Theory recommends 8...♘c6 9 d5 ♘e5 10 ♘xe5 ♙xe5 11 ♙h6 ♙e8 12 ♙d2 e6 13 ♙fe1 exd5 14 cxd5 when White is a little bit better, though it is nothing special. During the game I also considered 8...♙g4, but afterwards quickly found what looks to be a positional refutation: 9 h3 ♙xf3 10 ♙xf3 ♘c6 (the critical moment) 11 c5! ♘d7 12 ♙e3 e5 13 ♙xc6! (a surprise, but the black queenside is completely ruined and ...♘xd4 is prevented) 13...bxc6 14 d5 cxd5 15 ♙xd5 with a clear advantage to White, e.g. 15...♙e7 16 ♙c6 ♘f6 17 ♙g5.

9 h3

With his last move Black defended the diagonal f3-b7 and after ...♙g4 would be attacking both c4 and d4. Therefore 9 h3 is a natural reaction. Now comes the first critical moment in the game.



A difficult question: what should Black play here?

9...♘8d7?

A specious move. A badly placed piece is en route to a more active square (f6), as Black slowly completes his development. But in fact 9...♘8d7 is more or less the decisive mistake. The knight has no real function on f6; the only plan available is connected to ...♙f5 and ...♘e4 in order to relieve some of the pressure through exchanges. But White can easily prevent this, and does so in the game. Instead it was necessary to find real work for the black pieces, and not just let the fingers do the talking. Black needed to perform a correct evaluation of the position and a discovery of White's plan (though not so easy to predict, this was the task Black had put before himself by choosing a passive formation with 8...c6).

The correct move was 9...♙e6! in order to force White to decide upon his queenside set-up straight away. White has two possible ways to meet this.

a) 10 ♙b3!? is tempting when one sees how the game continues, but here Black has a strong reaction in 10...a5! 11 a4 ♘a6!, when the knight finds an active square on b4 from which it is truly restricting White's options, as well as preventing any problems down the b-file. I find it hard to believe that White has a real advantage here. His co-ordination is simply not good enough.

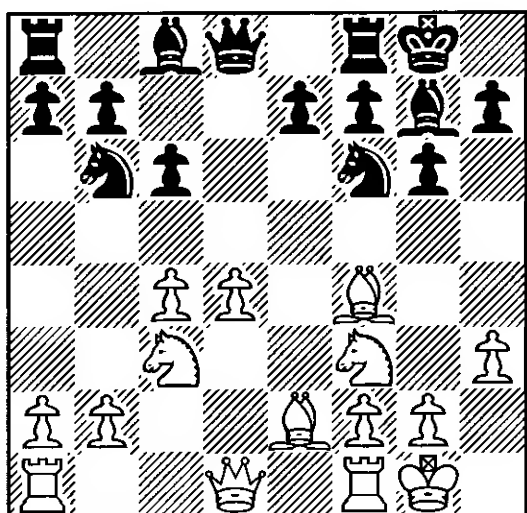
b) 10 b3 is the most natural move. Now Black can either develop slowly and be somewhat worse, or enter the more complicated variation 10...c5 11 ♖e3 ♘c6 12 d5! ♙xc3 13 ♖c1! ♙xd5 14 ♖xc3 ♙xf3 15 ♙xf3 ♗c7 16 ♙xc5 ♗e5 17 ♙xc6 ♗xc3 18 ♙xb7 ♖ab8 19 ♗f3 and White is better as here the bishops and the pawn are more than enough for the exchange. Of course Black has other choices, but White seems to be able to prove an opening advantage.

A pupil of mine suggested 9...♙f5, but as the idea of ...♘e4 will not happen, there is no function for the bishop on f5, and the move is hardly an improvement on the game.

10 ♙f4

The natural post for the bishop in any case, and while it might look as if the bishop is shooting into thin air, it actually has some important prophylactic functions. The black queen has only two available squares on the 7th rank (c7, d7) and none on the 6th. White can severely disturb Black's development by not allowing the queen access to these two squares. The bishop takes control over c7, as well as preventing the only active possibility behind 9...♘d7, i.e. 10...e5. The knight can always jump to e5 later and disturb the queen, so Black has no easy way to develop his pieces, as the queen will always be in the way of the rooks.

10...♘f6



White to play. What is the strongest move?

The problem with a move like this is that White now has complete control over e5, and Black cannot do anything against the white pawns on c4 and d4.

This is the first critical moment for White in the game. He has three pieces yet to be developed. It is natural to think that White will play ♗d2, ♖ad1, ♖fe1 and ♙f1 when his pieces are in harmony and he has more space. But although this gives White a slight advantage there is nowhere particular to go afterwards. White could play ♙h6 and exchange the right set of bishops, but Black has no real weaknesses. Instead, what I did was to approach the position prophylactically – as Mark Dvoretsky has advised in all his books and told me to do on every occasion we have met. So I started to look for Black's plans and found two.

The first involves 11...♙f5 with the idea of 12...♘e4. The knight is a bit stupid on f6 and the bishop has no good square either. The exchange of knights on c3 would give some breathing room and maybe indicate ...♙f5-e4, which White cannot really allow as the pawn on d4 would come under attack.

So my first thought was to play 11 ♖e1 in order to meet 11...♙f5 with the natural and desirable 12 ♙f1. Not a great plan, but at least something that develops my pieces, as well as preventing ...♘e4. Nevertheless, I was not filled with a feeling of ease by this. It seemed that I was not exploiting the full potential of my position, but rather making a specious operation of my own.

Also, Black has a different plan: he can play 11...♙e6 12 b3 a5, when after 13 a4 I have more space and some problems persist for Black, but he has forced me to fix my queenside pawns and therefore lose flexibility. I did not like that much either. I evaluated the position after 13...h6 to be better for White, but besides completing my development I did not see how to improve my position. So perhaps White's advantage is not so large after all?

What I needed was a way to combat both 11...♙e6 and 11...♙f5. I quickly came up with 11 ♖d3 ♙e6 12 ♗e2, avoiding 12 b3. But after 12...♗c8 13 ♖ad1 ♙f5! Black succeeds in getting rid of his most troublesome piece for my potentially best piece, and at the same time solves some of the problems with his queen. Note that after 14 ♗xe7 ♙xd3 15 ♖xd3 ♗f5 White suddenly has three unprotected pieces, and all of them are threatened. So it appears there is no way to prevent ...♙e6. However, this is not the point of prophylaxis. The point is to ensure that the opponent's every desirable operation comes at a high cost. So I started to go through my shortlist of positional factors to check when in doubt about my future operations. One of these factors is weaknesses. My weakness is obviously c4; Black's potential weaknesses are e7 and, to my surprise, b7. After the light-squared bishop moves away b7 is not easy to guard. So the move played in the game entered my mind with a strong sense of clarity and I quickly decided upon it.

11 a4!?

It was a great surprise to my opponent that his position after 11 a4 is close to being strategically lost. But to me it felt logical. He had played a passive opening system and wasted two moves on an operation of cosmetic character. Beyond the aesthetic nature of the knight manoeuvre to f6 there is nothing: no function of the move, no nothing. As I wrote earlier, some people say that the move you think of first is the one you play in 75% of cases – which may be true, but how many of these moves are theoretical moves, recaptures, exchanges or mistakes? Chess is a game with great potential for depth, both in calculation and in strategic thinking. The solution to this position was a move that White at first thought Black wanted to provoke, but actually it turns out to be the other way round. Neither intuition nor calculation can help much in solving such a problem. The longest variation was four moves long and hardly anything

more than an illustration of why White was moving in the wrong direction. With this kind of positional thinking a strong player can outplay a weaker player virtually every time. Unfortunately for me it is seldom that I can muster that kind of concentration and clarity. But if we go through the games of great players, we will find this depth of thought all the time if we look for it – especially if we go through the games of Capablanca, Alekhine, Lasker and all the other old guys, who were clearly better than their opponents. So when they found a strong plan the opponents usually did not see them and hence did not prevent them.

11...♙e6

Black has no good moves anymore. After 11...a5 12 ♖e1! ♙f5 13 ♙f1 White will continue with 14 ♗b3 and 15 ♖ad1. It is not easy to see how Black will continue. My team-mate Michael Jørgensen noticed that 15 ♙e3 with the idea 16 d5 was also possible. But I would not try to capitalise on my opponent's problems in such a fashion. Not because I am a nice guy, but because I do not see how he can improve his position. When I have the chance to improve my position more than my opponent has the chance to improve his, I would rather complete my mobilisation and only then strike. We shall return to this interesting idea at move 16.

11...♙f5 was perhaps the objectively strongest move. White would then continue 12 a5 ♗c8 (not 12...♗bd7? 13 g4! and the bishop is trapped) and either 13 ♗e5 or 13 a6 with a very large positional advantage in both cases. Nevertheless, White is forced to undertake active operations before he has finished his development and Black should therefore have more chances of survival. Actually this is why I have come to the conclusion that, although I was enormously proud about my decision in the game, and had the feeling that I penetrated to the heart of the problem completely, this was not in fact the case. I was so close and yet so far.

The correct move order was 11 ♖e1! ♙e6

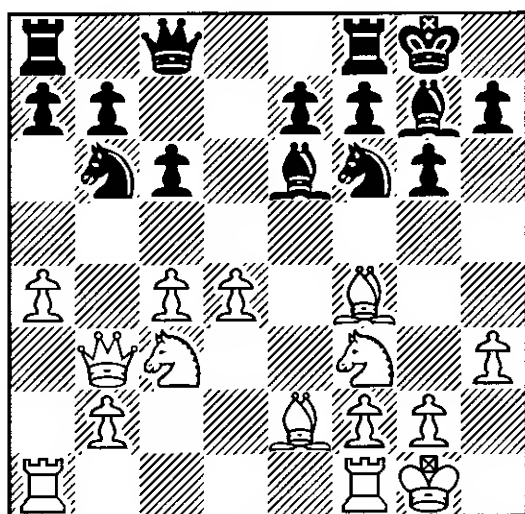
12 ♖b3 followed by 13 a4 and White is strategically winning beyond any doubt. There is nothing to regret about 11 a4!? as White still has a clear advantage; but the absolutely prophylactic 11 ♖e1 would not have allowed even the feeble try for counterplay with 11...♙f5. I must say that I am unsure whether anybody (except a true chess genius on a good day) could solve this problem in all its details at the board. Sometimes true depth is only possible through long and hard analysis repeated many times. Because honestly, who would refuse a position such as that after 13 a6 when he saw the possibility of it arising with his opponent's best play?

I discussed these considerations with Mark. At first I showed him 11 a4 as if it was the solution to the position, but when I found the refinement and told him, he was not too impressed. The difference between the two kinds of advantage is not so great and Mark thinks this kind of problem is not that relevant for training or writing, and completely clear examples create a stronger impression. Actually I disagree a little. I believe that clearly explained examples create the best impression, examples that give the core of a position and the reasons behind different claims. But everybody has their own opinions.

12 ♖b3!

This was of course the idea.

12...♖c8



13 a5 looks attractive, does it not?

13 ♖fe1!

This is another important moment in this game. It is tempting for White to play 13 a5 ♖bd7 14 d5 with an initiative in the centre. The question is whether this is too soon. It did not take me many seconds to decide that it was. Black has no convincing way to prevent this advance later, and meanwhile White can improve his position more than Black can improve his. This special kind of consideration often exists when you have an advantage.

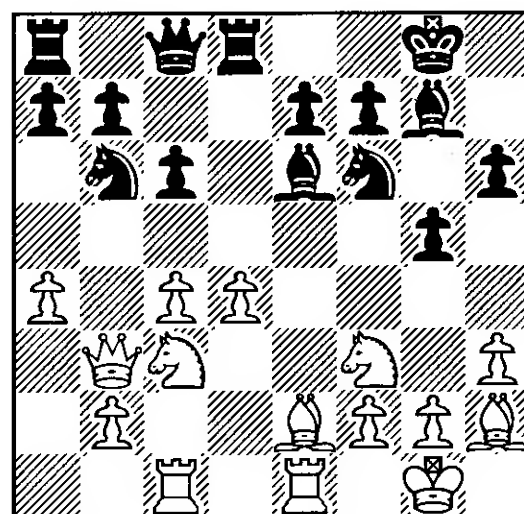
13...h6 14 ♙h2

The bishop was unguarded on f4 and a possible prey to tactics when White eventually takes decisive action. Therefore it is better placed on h2. Also, White now has a wide range of possible answers to 14...g5.

14...♖d8

Black cannot do much with his position; trying to mess things up 14...g5!? was possibly the best choice.

15 ♖ac1 g5!?



This is less strong now that White has completed development. The only move White might still want to play is ♙e2-f1 when all pieces are ideally placed, but this is not so important, especially now Black is considering some counterplay with ...g5-g4. Therefore it is logically the right moment for White to take action. When the game changes in this way, from the positional build-up where calculation is not really needed, to a full fledged frontal attack, the

way of thinking also needs to change. Both players will have to calculate accurately and play the best moves, or the evaluation of the position can alter very quickly.

What I personally find most difficult is to change from feeling the right way intuitively and evaluating it by logic, to working with accuracy and calculation. I often mess up my position in exactly this kind of situation because I am not playing with the right frame of mind (although my logic often proves correct and I maintain my playing level despite this obvious flaw in my thinking technique). In this game I make such a mistake which I present to you as a pertinent example, one that should not be ignored just because I win the game all the same (see the Nataf game below for a true failure).

16 a5

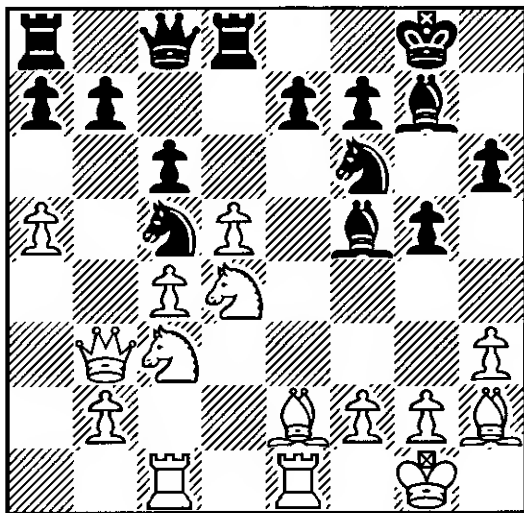
There is no reason now to hesitate in playing this move. I am clearly better and have no obvious way of improving my position anymore. It is time to fight.

16...♖bd7 17 d5

Again this just has to be right. While this 17 d5 was not played blindfold, I did not see the need to calculate everything here, as Black has only one move and White's play follows naturally.

17...♙f5 18 ♖d4 ♖c5

18...♙g6 was not an alternative: 19 a6! and the black queenside falls apart.



Time to calculate: 19 ♖a3 or 19 ♖b4 ?

19 ♖a3?!

So here it is – the miscalculation. Actually this position should not be too difficult for an International Master such as myself. White has two obvious moves and one of them could very well be better than the other. So the thing to do is to calculate both and find the difference between them. Here I did not really do so; instead I saw a short line and believed that I would not have to think at all.

Correct was 19 ♖b4! and now we have:

a) 19...♖a6 – I did not like the look of this, but had I gone as far as 20 ♖xe7 it would have been quite obvious that I was just being silly. White will advance his extra pawn to d6 and enjoy life, having a clear advantage as well.

b) 19...♖d3 does not look good because of 20 ♖xf5 ♖xb4 (20...♖xf5 21 ♙xd3 ♖xd3 22 ♖xb7 wins a pawn, since if 22...cxd5 23 cxd5 ♖xd5? 24 ♖cd1 and White wins even more) 21 ♖xe7+ ♙f8 22 ♖xc8 ♖axc8 23 d6 ♖d7 24 ♖ed1 and White will win with his extra pawn.

c) 19...♖fe4 20 ♖xf5 ♖xf5 21 ♖xe4 ♖xe4 22 ♙f3 is the line I had prepared in the game. Only here there is a big difference: Black does not have ...♖d2 with counterplay. Instead the game might continue 22...cxd5 23 cxd5 ♖f6 24 ♖xb7 ♖xd5 25 ♙g4 ♖f6 26 ♙c8! and Black loses the exchange.

This is a simple matter of comparison. Note that it was not that the position was too difficult for me to calculate, but that I had problems changing my frame of mind from logical thinking and positional play to calculation. Luckily I still managed to win the game.

19...♖fe4

White is clearly better after 19...♖d3 20 ♖xf5 (20 ♙xd3 ♙xd3 21 a6 ♙xc4 22 ♖xe7 b6 23 ♖xc6 ♖xd5 24 ♖c7 ♖xc7 25 ♖e7+ ♙h7 26 ♖xc8 ♖axc8 is probably good, but unnecessarily complicated) 20...♖xf5 21 ♙xd3 ♖xd3 22 dxc6 bxc6 23 ♖xe7 ♖xc4 24 ♖e4 ♖e6 25 ♖xe6 fxe6 26 ♖c5 and the endgame looks rather sad for Black.

Now I had to really think for the first time since my 11th move. I had clearly done my best to throw the advantage away, but at least I had had my cold shower and now found it no problem to concentrate on playing the best moves. After around 35 minutes thought I came up with the right way to continue.

20 ♖xe4 ♖xe4 21 ♖e3!

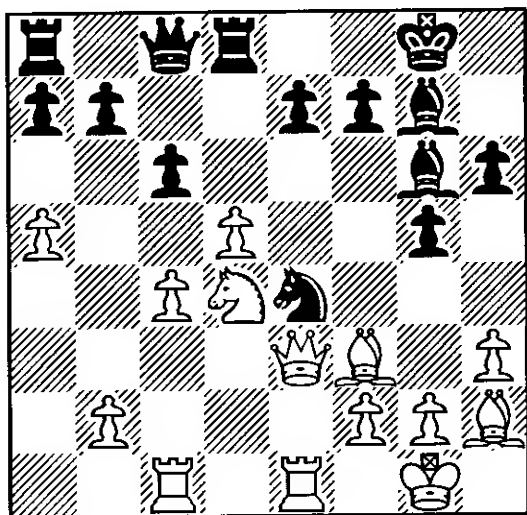
It turns out that White can still put Black under a lot of pressure, who has no easy way of getting out of this alive. Instead 21 ♖xf5? ♖xf5 22 ♖f3 cxd5 23 cxd5 ♖d2! is not clear.

21...♖g6

If 21...♖d6 22 ♖e5! and the black king-side is very fragile. I would consider White's position to be strategically winning, though it might require a lot of work to prove it.

21...e6 loses more or less by force to 22 ♖f3 c5 23 ♖xe6 fxe6 24 ♖xe4 ♖xb2 25 ♖b1 ♖d4 26 ♖xf5 exf5 27 ♖e6+ ♖xe6 28 ♖xe6 ♖d7 29 ♖xh6 with an extra pawn in the endgame.

22 ♖f3!



An accurate move. White wants to answer a later ...f5-f4 with ♖d3 in order to target the g6-bishop. Suddenly he is playing chess again!

22...c5

22...f5 loses to several moves, but most clearly to 23 ♖e6 ♖xb2 24 ♖xe4 fxe4 25 ♖b1 ♖f6 26 ♖xd8 ♖xd8 27 a6 bxa6 28 dxc6 with an extra exchange and the plan c6-c7 and ♖b8.

23 ♖b5 f5 24 g4!

Undermining e4. I want that e7-pawn!

24...f4?

A result of time trouble.

25 ♖d3 a6 26 ♖c3?!

This works out OK, but again actual calculation would have been helpful. After 26 ♖a3! ♖xb2 27 ♖xe4 ♖xc1 28 ♖xg6 the win is even easier.

26...♖xc3 27 ♖xg6 ♖a4?

After 27...♖d6 White wins by 28 ♖h5! ♖a2 29 ♖xe7 ♖f8 30 ♖ce1 and Black cannot defend himself. If nothing else then 31 h4 will free the h2-bishop and White will enjoy his material advantage.

28 ♖xe7 1-0

There is no defence against mate.

A lucky escape, even though it might not seem so superficially.

In my books I have a tendency to write what I think, what I believe in, as if it was the absolute truth. This is a conscious choice of style rather than arrogance. I dislike writers who constantly apologise for having a point of view and start every original idea they have with a 'maybe'. I would rather trust that the reader is intelligent and able to make up his own mind, than present my views as if I cannot even take them seriously myself. As my point of view is not my identity I have no problem with other people disagreeing with me, just as I have no problem disagreeing with others and still feeling great respect for them and their achievements.

This little introduction to the next game is included because I will now refer to a personal discussion with the English grandmaster Luke McShane about one of his games. As McShane has a different view to mine, and as the game is a very nice example of what I have described above, I will trust the reader to make up his own mind and not take sides. Because, when we play, no one is on our side – so why should we take sides in discussions about how chess is best played?

P.H.Nielsen-McShane

Copenhagen 2003

Grünfeld Defence

1 d4 ♘f6 2 c4 g6 3 ♘c3 d5 4 cxd5
 ♘xd5 5 e4 ♘xc3 6 bxc3 ♙g7 7 ♙c4 c5
 8 ♘e2 ♘c6 9 ♙e3 cxd4 10 cxd4 ♚a5+

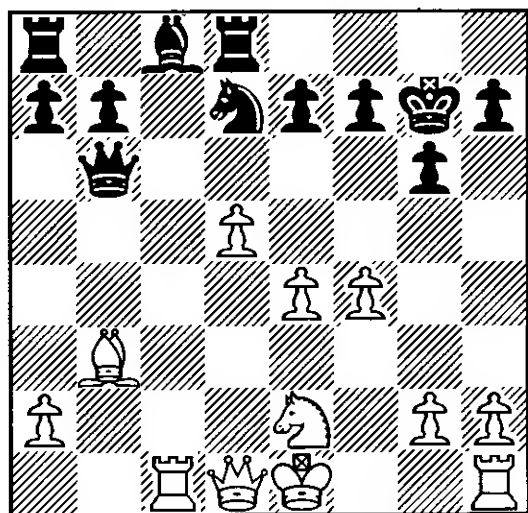
This was the third main line Grünfeld between the two players in just two months. For the second time McShane deviates from the previous game – here with a speciality of Svidler's.

11 ♙d2 ♚d8 12 d5 ♘e5 13 ♙c3 0-0 14
 ♙b3 ♚b6 15 f4 ♘d7

In Kramnik-Svidler, Dortmund 1998, White soon had a winning positional advantage after 15...♘g4 16 ♙d4 ♚b4+ 17 ♚d2 ♚xd2+ 18 ♙xd2 e5 19 h3 exd4 20 hxg4. The forthcoming opposite-coloured bishops are of little importance, compared with the strong d-pawn and the weakness of f7.

16 ♙xg7 ♘xg7 17 ♙c1 ♙d8!

17...♘f6 18 e5 ♚b4+ 19 ♙f2 ♘e4+ 20 ♙e3 ♘c5 21 ♚d4 ♚xd4+ 22 ♘xd4 b6 23 ♙d1 ♙b7 24 ♙f3 gave White a clear edge in the endgame in Atalik-Berndt, Halkidiki 2002.



*White to move. The opening is over.
 How should the pieces be organised?*

18 ♙c4!!

A very fine move indeed. White is thinking about ♚d4+, but mainly he is reorganis-

ing his pieces for entering the c-file. White's chances for an advantage are still very much based on his lead in development.

Peter said in the commentary room that, although it appears that there are no other constructive moves in the position, it took him 30 minutes before he even started to consider this move. I think this is a great example of his two greatest strengths in action. The first is thorough preparation; 17...♙d8 is a novelty and Peter was aware of that. The second is his great feel for the pieces. Being an intuitive player he mixes calculation with evaluation and intuition constantly, and this way finds the right move using many criteria, as he did here.

18...e5

This was the move Black wanted to play.

19 ♚a1 f6?

This weakens too many squares. It was much better to keep the control over e5 with 19...♙e8 when 'it would take a long time to come to any definite conclusions. But I would rather show my tricks.' – Nielsen in the commentary room.

Actually Luke McShane simply overlooked something later on (26 ♙f8+!) and therefore saw nothing wrong with 19...f6. So was it a positional or a tactical mistake? I would argue both. A tactical mistake is an oversight and the game was decided partly because of a blind spot in McShane's calculation (the first of its kind in three years according to the man himself). My argument for it being a positional mistake, and primarily a positional mistake, is that McShane allows an awful lot, and lets the game go in a direction where his weakened position depends on a minor finesse eight moves further on. Positional evaluation, or a player with a stronger intuition, would not go so far down the wrong road but notice the rook invading the seventh rank, indirectly attacking the king, the weakness of f6 and e6, and the continued X-ray threat on the long diagonal. All these danger signs are of a positional nature and, added together, are decisive.

Had no safer path existed for Black it would be hard to argue like this, but it does. He does not have to weaken his position or create a route for the white rooks and knight to enter the position.

McShane, on the other hand, who knows what he is talking about, saw 19...f6 as a purely tactical mistake. He said he had not overlooked anything like this for the last year or two, and still saw nothing wrong with his approach.

So we disagree. It would be easy for the reader to take the point of view that McShane is right, simply because he is a much better player than me. But if this was true then Dorfman's two books should be masterpieces, simply because he is very strong. Life is not that simple.

McShane explains how he plays chess and I explain how I would make a decision in this position. That McShane does better with his method than I do with mine is irrelevant, since I am sure he would do better with mine as well. I think the right thing is to look at his opponent, Peter Heine Nielsen (who is of the same strength as McShane), and realise that Peter does not solve his problems through calculation alone, but also through a strong intuition. Obviously there is the matter of style and personality here. I am sceptical of relying too much on calculation, and fear that this practice might be a roadblock in the development of Luke McShane's enormous chess talent. But I believe that, for the reader, the lesson should be obvious. If you can calculate very well, you should of course use this ability to your advantage; if you cannot, do not feel any pressure to play as if you can, but use your intuition and other facets of your chess ability in order to find your own balance.

20 ♖c3 exf4

Black executes his plan. Now it is also virtually impossible to turn back.

21 ♖xf4 ♖e5 22 ♖c7+

White calculated the position accurately in

order to allow his rook to enter the lion's den.

22...♖h8 23 ♖f1!

Bringing the last piece into play.

23...♖d7?!

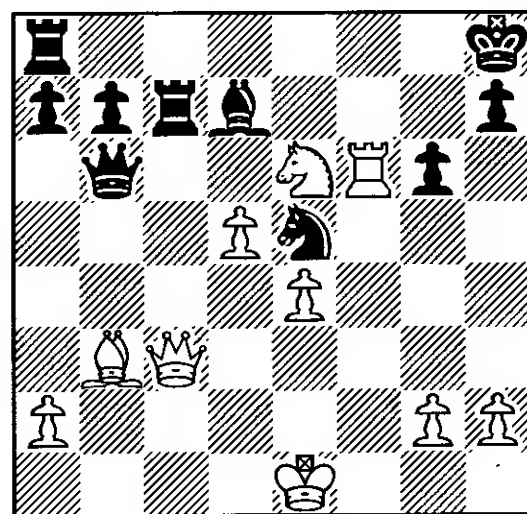
After this the win is straightforward as Black loses a tempo. Nielsen gave the following winning line in the commentary room: 23...♖e8 24 h3!! (a fine waiting move) 24...♖d7 25 ♖e6 ♖xe6 26 ♖xf6 ♖g1+ 27 ♖f1 ♖h2 28 dxe6 followed by g3 and Black's control over e5 is broken. Here it is very useful that the h-pawn has advanced since there is no check on h4.

Now White calculates the position sufficiently to make the correct decision.

24 ♖e6! ♖dc8

When he got home after the game Nielsen found an email sent by an internet spectator, with the following winning line: 24...♖xe6 25 ♖xf6 ♖g1+ 26 ♖f1 ♖xh2 27 g3 ♖h5 28 ♖d1 ♖g5 29 ♖f5! gxf5 30 ♖xe5+ ♖g8 31 ♖xe6+ ♖h8 32 ♖e5+ ♖g8 33 d6 ♖e3+ 34 ♖f1 ♖d3+ 35 ♖f2 ♖d2+ 36 ♖e2 and Black will be mated.

25 ♖xf6 ♖xc7



26 ♖f8+!

McShane had simply overlooked this. Now he is mated.

26...♖xf8 27 ♖xe5+ 1-0

When we play a game with 2 hours for 40 moves (or 90 minutes for the whole game +

30 seconds per move, as happens more and more often), the time we can spend on each move is obviously limited. Therefore we need to develop our ability to spot the critical moments. In his two books, *The Method in Chess* and *The Critical Moment*, Dorfman attempted to set up some algorithms, but these were not very convincing. The logic never really connects; in fact the examples are so poorly analysed that the reader can hardly bridge between logic and reality at all.

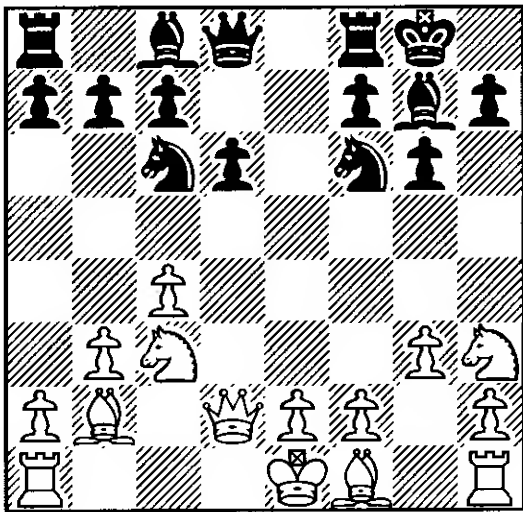
The following example is a good example of what I mean.

Murshed-Dorfman

Palma de Mallorca 1989

English Opening

1 d4 d6 2 c4 e5 3 ♘c3 exd4 4 ♚xd4 ♘c6 5 ♚d2 g6 6 b3 ♙g7 7 ♙b2 ♘f6 8 g3 0-0 9 ♘h3

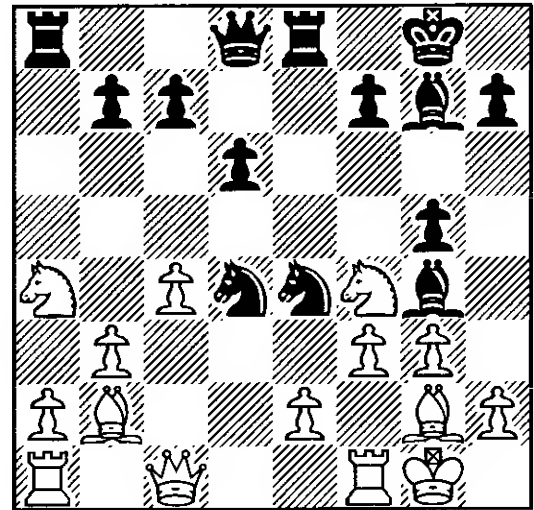


‘Here on White’s part one can contemplate evolution by ♘f4, ♙g2 and 0-0. Nothing similar exists for Black. This means that White has a static advantage. Therefore Black went in for vigorous measures, and a double-edged situation after:’

9...a5!? 10 ♘f4 a4 11 ♘xa4 ♘e4 12 ♚c1 ♘d4 13 ♙g2 ♙e8 14 0-0 ♙g4 15 f3 g5

Here Dorfman turns to his next example. However, it is difficult to understand why Black does not have every chance to equalise

with 9...♙f5 10 ♙g2 ♚d7 11 ♘f4 ♙ae8 completing his development.



The game finished:

16 e3 ♘xf3+ 17 ♙xf3 ♙xf3 18 ♙xf3 gxf4 19 ♙xg7 ♘xg7 20 ♚b2+ ♙f6 21 ♚xf6+ ♙xf6 22 ♙e1 d5 23 cxd5 b5 24 ♘b2 ♙g7 25 ♙xf4 ♙xa2 26 ♘d3 ♙d2 27 ♙g4+ ♙h8 28 ♘f4 f5 29 ♙h4 ♘g5 30 ♙f1 ♙xe3 31 ♙h5 ♘f3+ 32 ♙h1 ♙xb3 33 ♙a1 ♙bb2 34 ♙a8+ ♙g7 35 ♘e6+ ♙f6 36 ♙f8+ ♙e7 0-1

It is a pity that Dorfman chose to present his theory as a rigid algorithm and explain it with badly analysed and badly explained examples. Because, although not very original, he is dealing with a very important topic in chess understanding. His definition of a critical moment would basically include every move from the start of the middlegame to somewhere in the endgame, but this is because he wants to have strict rules which can be following without thinking. Obviously this is not the way we should go if we want to improve our chess. The development of chess understanding is best done through the study of well explained examples, through analysis, training in calculation and other forms of exercise solving. All of these methods involve thinking – and it is difficult to believe that there is a way to improve one’s chess, that involves turning off one’s brain and relying on algorithms or rules alone.

This does not mean there are no basic concepts and ideas in chess, through which we can improve our understanding, and from which we can draw benefit in practical play. Here we are dealing with one such idea: the critical moment. *The key idea is that there is only so much we can achieve through positional operations, and at some point we will have to calculate at least a little in order to decide the game in our favour. This is often best done at the exact moment when you cannot improve your position as much as the opponent can improve his.*

This is a rather abstract concept, but I have seen it happening again and again, and it has helped me spot the critical moment in a lot of my games. That I did not always live up to it is probably the answer to the question of why I am not a grandmaster, but my failings do not make the idea invalid. In any case, the idea is not very original, even though I have expressed it slightly differently from before. Steinitz said that if you have the advantage, you have to attack or you risk losing it. This has been developed further by other theoreticians. In the words of Mark Dvoretsky it means that there will come a time when you will have to calculate in order to use your positional play to gain a full point. This is not very different from what I am saying.

The following game between the 13-year-old prodigy Magnus Carlsen (who, in May 2004, became a grandmaster and is currently the youngest player in the world with this title) and the World's number one, was played in Iceland in a rapidplay knockout tournament, where the drawing of lots accidentally gave the first round pairing any organiser would dream about.

The critical moments in this game are on moves 17 and 20 for Black, and moves 25 and 29 for White.

M. Carlsen-Kasparov

Reykjavik (rapid) 2004

Queen's Gambit Declined

1 d4 d5 2 c4 c6 3 ♘f3 ♘f6 4 ♘c3 e6 5

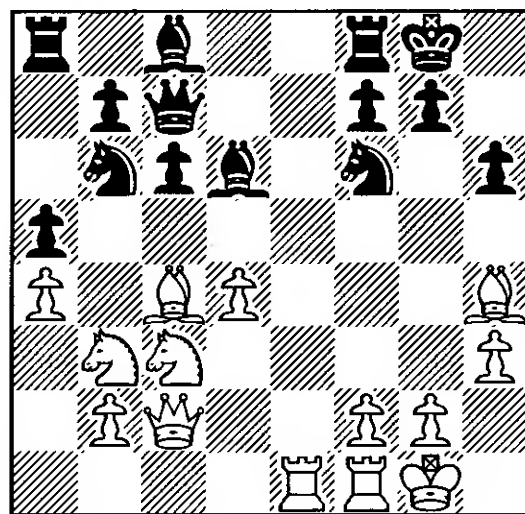
♙g5 ♘bd7 6 e3 ♚a5 7 ♘d2 ♙b4 8 ♚c2 0-0 9 ♙e2 e5 10 0-0 exd4 11 ♘b3 ♚b6

I don't much like this move, but that is a question of opening theory and not a subject for this book.

12 exd4 dxc4 13 ♙xc4 a5 14 a4 ♚c7 15 ♙ae1!

Amazingly this natural move is a novelty. Previously the feeble 15 ♘d2 was played in Kishnev-Smagin, Germany 1999. With the text move the Norwegian junior develops his rook to take over the only fully open file in the position and prepares for the middle-game. Now Black has some serious problems with continuing his development. He cannot easily mobilise the queenside without removing the protection of the knight on f6.

15...h6 16 ♙h4 ♙d6 17 h3! ♘b6?!



17...b6 was the quiet move here. After something natural like 18 ♙e2 White would be slightly better. Instead Kasparov, in characteristic fashion, tries to solve his problems tactically, though this seems to violate the inherent principles of the position. Black is in no way ready for a full frontal confrontation, and he comes out of it in a very bad way.

18 ♙xf6!

The critical test. White is obviously ready for a fight.

18...♘xc4 19 ♘e4!

Hitting the knight and indirectly protecting the bishop; the point was to avoid playing 19 ♙h4?!.

19...♔h2+

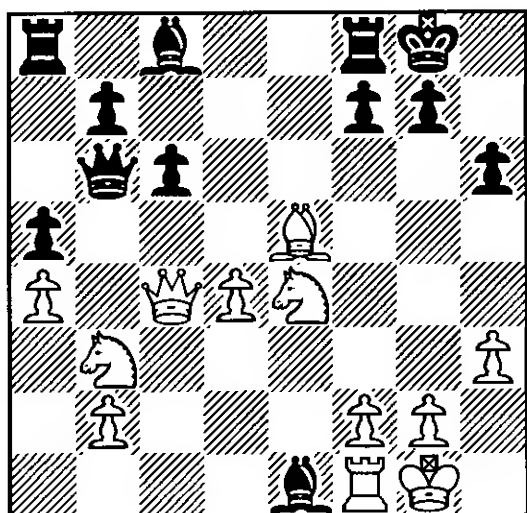
a) 19...♖b6?? 20 ♖xd6 gives White a great advantage as Black's only move is 20...gxf6 with a ruin.

b) 19...gxf6 leads to immediate mate by 20 ♖xf6+ ♔g7 21 ♖h7+ ♔xf6 22 ♖xh6+ ♔f5 23 g4 mate.

c) 19...♖b4? is met strongly by 20 ♖xc4! with a branching of the ways:

c1) 20...♔e6 21 ♖d3 ♔xe1 (21...♔xb3 22 ♔e5 ♖e7 23 ♖g3 f6 24 ♖xf6+ ♔xf6 25 ♔xf6 ♖f7 26 ♔xg7 ♔h7 27 ♔xh6 ♔xe1 28 ♔xe1 ♔xh6 29 ♔e4 and wins) 22 ♔e5 ♖b6 23 ♖g3 f6 24 ♖xf6+ ♔f7 25 ♖d7! ♔xd7 26 ♖xg7+ ♔e8 27 ♔d6! and Black is mated.

c2) 20...♔xe1 21 ♔e5! (if 21 ♔xe1 gxf6 22 ♖xf6+ ♔g7 23 ♖e8+ ♔xe8 24 ♔xe8 ♔e6 25 ♔xe6 fxe6 26 ♖xe6 ♔f8) 21...♖b6 (the only move)



White to play. Surely there must be an attack?

22 ♖d3!! (a cunning move with the twin threats of 23 ♖g3 and 23 ♔xe1; after 22 ♔xe1 ♔e6 Black is OK) 22...♖b4 23 ♖g3 (the attack with 23 ♖f6+ gxf6 24 ♔xf6 does not work after 24...♖c7 25 ♖e3 ♔e7, though White should still draw) 23...f6 24 ♖xf6+ ♔f7 25 ♖e4 and White has a winning attack, e.g. 25...♔g8 26 ♖f3+ ♔e7 27 ♖bc5 ♖d8 28 ♔xg7 and Black's position collapses, or 25...g5 26 f4 g4 27 ♖bc5 ♔xc5 28 dxc5 ♖b4 29 ♖d6+ ♔g6 30 ♖xc8 and White wins.

20 ♔h1 ♖d6?

Kasparov still tries to solve his problems tactically, but again his position is not ready for it. Necessary was 20...♖b6! after which White can respond in two ways:

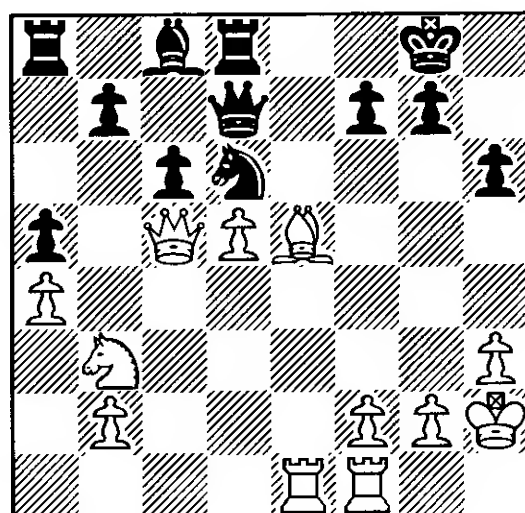
a) 21 f4!? ♔xf4 22 g3 ♔g5! (22...♔xg3? 23 ♖g2 is not advisable) 23 ♔xg5 hxg5 24 ♖xg5 f5 and Black is OK.

b) 21 g3 ♔xh3 22 ♔e5! (compare this with 22 ♔xh2 ♔xf1 23 ♔e5 when Black has an extra option in 23...♖d7! 24 ♔xf1 ♖xa4 and the position is less clear) 22...♖d8 23 ♔xh2 ♔xf1 24 ♔xf1 ♖d5 (24...♖xa4?! 25 ♔a1 ♖b6 26 ♖d6 is particularly unpleasant for Black) 25 ♖bc5 b6 26 ♖d3 ♖d7 and Black is only a little bit worse. White's best now is 27 ♖c3! to eliminate the strong knight on d5.

21 ♔xh2 ♖xe4+ 22 ♔e5 ♖d6 23 ♖c5

23 d5!? ♔d8 24 ♖d4 is also strong, but after 24...♖d7 White does not have anything better than 25 ♖c5 transposing below.

23...♔d8 24 d5 ♖d7



White to play. How to maintain the pressure?

25 ♖d4!!

This move is particularly tasty. Black is not given a chance to develop.

25...♖f5

Black is in a terrible state. If 25...b6 26 ♖xc6 ♔a6 27 ♔g1 and White has an extra pawn, or 25...cxd5 26 ♖xd6 ♖xd6 27 ♔xd6 ♔xd6 28 ♔e8+ ♔h7 29 ♔c1 and the resulting endgame with an extra piece should win eas-

ily for White, although Kasparov would probably make hell hot for the little boy and fight to the absolute end.

26 dxc6 bxc6 27 ♖xc6

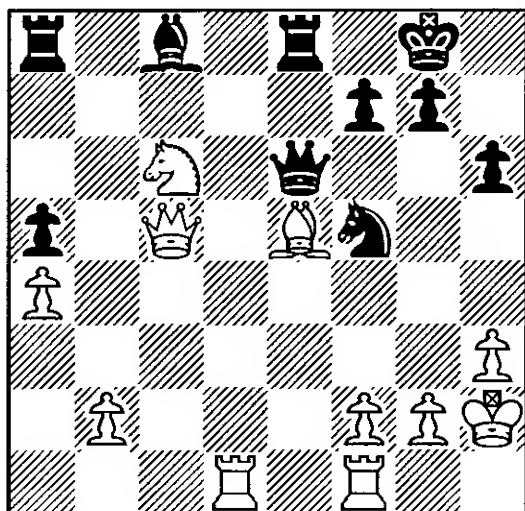
27 ♖d1! has been suggested as an improvement, but the game continuation is good enough to win.

27...♗e8

The queen is exposed on d7, so in principle it was better to play 27...♗d5!?, although 28 ♗xd5! (keeping it simple; 28 ♗b6!? ♗e8 29 ♗b5 is also strong) 28...♗xd5 29 ♖d1 ♖c5 30 ♖c1 ♖xc1 31 ♖xc1 ♖d7 32 ♖c7! ♖c8 33 ♖xa5 ♖xa4 34 b4 gives a winning endgame.

28 ♖d1 ♗e6

If 28...♗b7 29 ♖xa5 ♗e4 30 ♖fe1 ♗xa4 31 b4 and White has an extra pawn.



White to play. A natural move never hurt anybody, did it?

29 ♖fe1?

The critical moment. White makes a natural move, but after this Black is able to develop some counterplay.

The correct move was 29 ♖c7! which is pure prophylaxis against the Black's coming development. The bishop is aiming at a5 and is no longer in trouble on e5. But most importantly, Black no longer controls the g5-square, which is very important in the lines after ...♖b7 (as can be seen by comparison). After 29 ♖c7! we have:

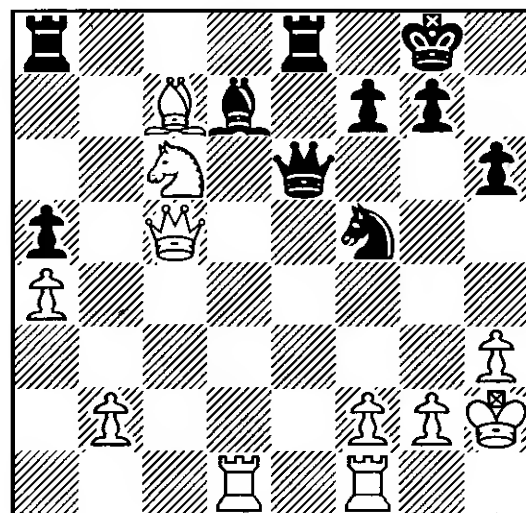
a) 29...♗b3 30 ♗b5 ♗c2 (30...♖e6 31

♖xa5 ♗xb5 32 axb5 ♖a7 33 ♖c1 ♖d4 34 ♖b6 ♖xa5 35 ♖xa5 ♖b3 36 ♖c7 ♖xc1 37 ♖xc1 and wins) 31 ♖c1 ♗d2 32 ♖b8 ♗e2 33 ♗xe2 ♖xe2 34 ♖fe1 ♖xe1 35 ♖xe1 ♖e6 36 ♖e5 and White wins.

b) 29...♖b7 30 ♖xa5 wins. Here 30...♖xg2 does not work because the white queen controls g5 after 31 ♖xg2 ♖h4+ 32 ♖g3 ♗g6+ 33 ♖xh4, while if 32...♗e2 33 ♗d5 and Black's attack has been refuted (but not here 33 ♖xh4?? ♗f3! and Black wins).

c) 29...♗f6 30 b3 ♖a6 31 ♖fe1 and Black is a pawn down without counterplay.

d) 29...♖d7



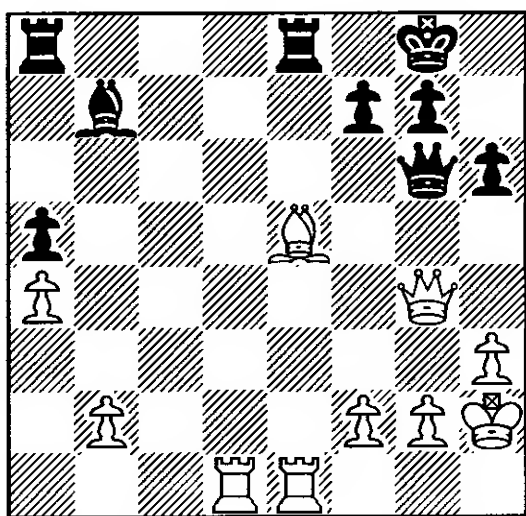
30 ♖b8!! ♖xa4 (if 30...♖axb8 31 ♖xb8 ♖xb8 32 ♗c7 and White ends the exchange up) 31 ♖fe1! (the right rook; after 31 ♖de1 ♗c8! Black survives, at least for the time being) 31...♖xd1 (31...♗c8 32 ♖xe8+ ♖xe8 33 ♖d8 leading to a winning endgame for White, since if 33...♗e6 34 ♗b5! ♖d6 35 ♗c6! wins the house) 32 ♖xe6 fxe6 33 ♗c6! (a nice fork) 33...♖axb8 34 ♖xb8 ♖xb8 35 ♗xe6+ ♖h8 36 ♗xf5 a4 (if 36...♖xb2 37 ♗c8+ ♖h7 38 ♗c1 wins; Black does not have a fortress since White can return the queen at the right moment and enter a winning pawn endgame) 37 ♗e5 and White has a winning endgame, although it would still take some converting.

29...♖b7 30 ♖d4!?

Putting on the brakes. After 30 ♖xa5 Black has a nice tactical idea in 30...♖xg2! 31

♖xg2? ♜h4+ 32 ♖h2 (32 ♖g3?? loses here
 to 32...♙g6+!) 32...♜f3+ 33 ♖g3 ♜g5! 34 f4
 (34 ♜h1?? ♜e4+ wins the queen) 34...♙xh3+
 with a strong attack. However, White could
 reply in similar fashion: 31 ♙xg7! (this would
 need to be found before playing 30 ♜xa5)
 31...♙g6 32 ♜xe8+ ♜xe8 33 ♜e1 (33 ♙b5?
 ♜xg7 34 ♜g1 ♙e4! gives Black the initiative,
 as 35 ♜xg2? loses to 35...♙f4+ 36 ♖h1 ♜e1+
 37 ♜g1 ♙f3+ 38 ♖h2 ♙xf2+ 39 ♜g2 ♙f4+
 40 ♜g3 ♜e3) 33...♜d8 34 ♜d1 with a draw by
 repetition. These lines are not conclusive, but
 show that Black has good counterplay.

30... xd4 31 xd4 g6 32 g4!?



White is nominally better in this endgame but has no real winning chances. 32 f3 was a bit more ambitious, though Black should be able to make it by now.

32...♔xg4 33 hxg4 ♕c6 34 b3 f6 35 ♕c3 ♖xe1 36 ♖xe1 ♕d5 37 ♖b1 ♔f7 38 ♔g3 ♖b8 39 b4 axb4 40 ♕xb4 ♕c4 41 a5 ♕a6 42 f3 ♔g6 43 ♔f4 h5 44 gxh5+ ♔xh5 45 ♖h1+ ♔g6 46 ♕c5 ♖b2 47 ♔g3 ♖a2 48 ♕b6 ♔f7 49 ♖c1 g5 50 ♖c7+ ♔g6 51 ♖c6 ♕f1 52 ♕f2 ½-½

It is important, in order to be able to organise our time in the best possible way, to develop our feeling for the critical moments in chess. This also answers one of the most common questions chess players ask: how much should I calculate? The right answer in my opinion is: not more than the position

requires. This is what I dislike about 19...f6 in the Nielsen-McShane game. McShane is trying to solve all his problems by calculation. Recently I talked on the Internet to an amateur who claimed that calculation was all that mattered, that calculation alone created results. This point of view seems to be very common and was supported by John Watson in his famous book *Secrets of Modern Chess Strategy*. Watson and I have been debating our different viewpoints in a slightly excited tone across the Atlantic. But despite our differences, neither Watson nor I would claim anything along those lines.

Watson says that modern players rely more on calculation than previously and also includes, in his terminology of calculation, things that I would not consider calculation at all, such as noticing that a square is weak. Also he mentions intuition without presenting a theory of how intuition is developed or improved, apart from referring to a scientific study where grandmasters were shown to have seen at least 100,000 positions in their lifetime. That seeing these positions alone does not account for the development of intuition is beyond doubt.

I do not wish to continue my discussion with Watson here, but simply to make it clear to everybody that the antithesis of what I am saying is not its direct opposite. Equally, my belief that such things as rules and guidelines are practical tools a tournament player can use to his advantage, does not mean that I disparage calculation. And does anybody seriously believe that Tarrasch or Lasker or their contemporaries did so either?

In the next game I was able to outplay my opponent with simple moves, which is explained by it being a morning round. My opponent suffered from the early start, and by the time he was awake enough to think his position was already horrible. He managed to save the game, partly because I missed an important critical moment, and partly be-

cause of his creative defence.

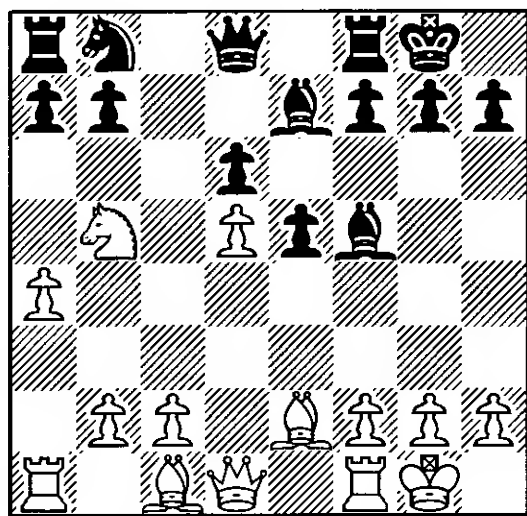
The game was drawn when I failed to see a win in an advantageous position after the time control and, realising how tired I had become, decided that it was very unlikely that I would see one. Instead, to my opponent's surprise, I offered a draw and won easily the next day with White against a grandmaster.

Nataf-Aagaard

Stockholm 2004

Sicilian Defence

1 e4 c5 2 ♘f3 ♘c6 3 d4 cxd4 4 ♘xd4 ♘f6 5 ♘c3 e5 6 ♘db5 d6 7 ♘d5 ♘xd5 8 exd5 ♘b8 9 a4!? ♙e7 10 ♙e2 0-0 11 0-0 ♙f5?!



I had only prepared for 9 c4 and did not know the theory of 11...f5 (which I was and am convinced is the best move). I had seen that Illescas Cordoba had played 11...♙f5 against 9 c4 (although that could have been a mistake in the database!), so I decided to play like this to depart from theory as soon as possible. My opponent is well known for his hard work on the opening, so this approach made good practical sense. But usually I do not like to deviate from my opening repertoire and play inferior moves, as this often means ending up in a bad position. I would rather risk meeting my opponent's opening repertoire head on, as experience tells me that they are not perfectly prepared either,

and I might improve on their analysis or on other people's play in similar positions.

12 f4

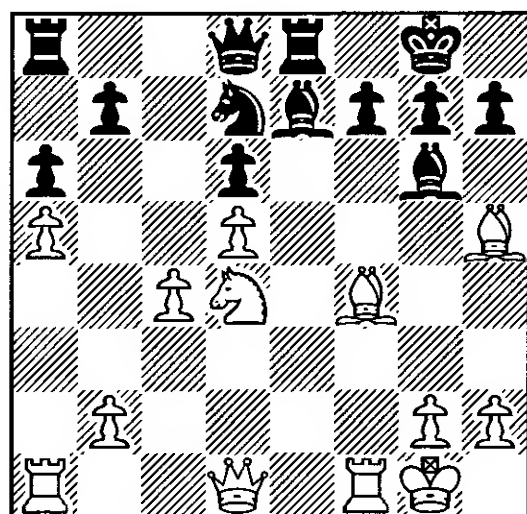
This move is not really very good. Nataf decided upon it within five minutes, and at first I thought it was very strong as the white knight gains the d4-square. Later I decided that this square was not so important.

After the game, when I was falling apart with fatigue and Nataf had awoken fully, he found the following convincing way to gain an advantage: 12 c4! a6 13 ♘c3 ♘d7 14 a5 and White is better. My attempt to create a blockade on the dark squares on the queen-side with 13...a5 was eliminated by 14 c5! dxc5 15 f4! e4! (Forced since 15...exf4? 16 ♙xf4 ♙g6 17 ♚b3 gives White a decisive positional advantage) 16 g4 ♙d7 17 ♘xe4 f5 18 gxf5 ♙xf5 19 ♘g3 and Black is in trouble. 12...exf4 13 ♙xf4 ♙g6 14 a5?!

As I said, White was not at his best. Later we quickly agreed that White is better after 14 ♚d2! a6 15 ♘a3 ♘d7 16 ♘c4 with a standard position for this variation. With the text move he loses the chance of going to a3. 14...a6 15 ♘d4 ♘d7 16 c4 ♙e8

Another critical moment. On a normal day Nataf would have realised which way the tide was moving and used a lot of time at this critical moment to find the right way. Instead he played a very suspect move.

17 ♙h5?!



In principle this should be a good ex-

change for White, as it is his 'bad' bishop for my 'good' bishop. But actually this is a naive understanding of the position. The important question is where the pieces are going and where they would like to go: to give them a definite function and avoid specious moves, as described above in Aagaard-Østergaard.

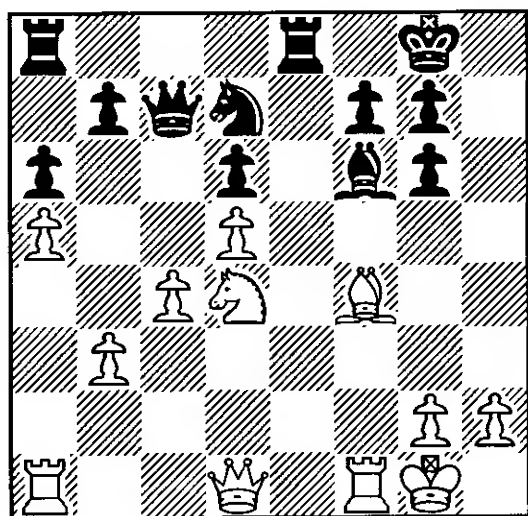
Here the exchange on g6 is completely in Black's favour. The knight manoeuvre ...♞d7-c5-e4 is now much more pleasant, while the d4-knight becomes somewhat lost in space with no prospects, despite its central position; its only dream was of the f5-square, which will now evaporate. Black's dark-squared bishop is in no way bad either: after ...♞e7-f6 the bishop will become a monster with strong influence on the centre; the white bishop on f4 has nothing similar in its crystal ball. Finally, White no longer guards the d3-square very well and will have some problems with his pawns on the light squares, which were better off with the protection of his light-squared bishop.

White's position was not easy, but moves like 17 ♖h1 or even 17 ♔d3 would have served him better.

17...♞c7!

I used some 10 minutes to picture the organisation of the black pieces. To be honest, it was not very difficult and I could have done it faster, but I had enough time.

18 ♔xg6 hxg6 19 b3 ♔f6



Another critical moment. What should White do?

It is easy for Black to find the right move order once he has decided where his pieces belong. He just needs to find the move order that grants him the greatest flexibility and his opponent the greatest inconvenience, if only from a practical viewpoint. If the opponent has to attend to a lot of tactical threats all the time, if nothing else he will have to invest time in avoiding them.

20 ♔g3?!

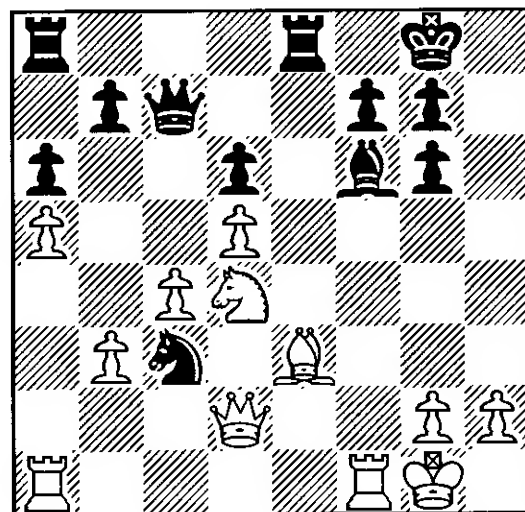
This logical move is actually rather bad as from here on it is hard for White to organise his pieces effectively. The natural move 20 ♞d2!? was better. Black has a pleasant game with 20...♞e4 (20...♞c5!?) 21 ♔e3 ♞ae8 22 ♔f2 ♞c5 23 ♞a3 ♞4e7, but White can still defend with 24 ♞c2! and if 24...♞e4? 25 ♞e6! White is definitely back in business. Attention to such small tricks is an important part of the defence. Instead Black should probably continue with 24...♞c8! bringing the least active piece into the game.

20...♞c5

Again an easy move to play, as the natural move is assisted by the threat of winning the exchange.

21 ♞f3

Things are no fun for White. If 21 ♔f2 ♞e4 22 ♔e3 (22 ♞d3!? is probably necessary and Black is clearly better) 22...♞c3 23 ♞d2



A quick combination.

23...♞e2+! 24 ♞xe2 ♔xa1 25 ♞xa1 ♞e7

26 ♔f4 ♚xe2 27 ♚xe2 ♜xe2 28 ♔xd6 ♜ae8 and Black should win the endgame, though White still has some counterplay.

21...♞e4 22 ♔e1

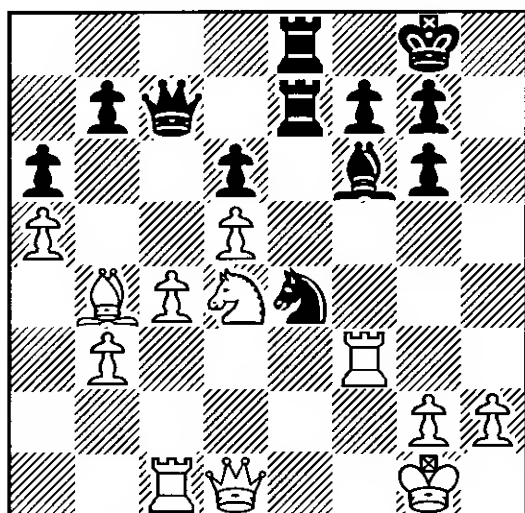
Allowing the exchange of knight for bishop would leave White permanently and unpleasantly worse.

22...♞e7!

Making room for the other rook to enter the game. Everything is still easy for Black. 22...b5!? was also possible, but with 22...♞e7 I had a simple way of improving my position and bringing all the pieces into play before seeking a direct confrontation.

23 ♔b4 ♜ae8 24 ♜c1?!

After this move I am sure White's position simply cannot be saved with best play by Black. 24 ♚d3 was necessary in order to bring the rook quickly to d1, and after 24...♞c5 25 ♚d2 Black is clearly better, but nothing immediately conclusive strikes the eye.



24...♚b8!

Neither to me nor my opponent was this move anything special. The queen is the worst placed piece and activating it via a7 is a standard manoeuvre in these kind of structures.

25 ♚d3

At first my computer program believes that White should try 25 ♞e2, but quickly realises its mistake. Suddenly Black has an extra option in 25...b5! which is very uncomfortable for White. He is completely disorganised and Black is ready to increase the

pressure. One possible line to show what White can expect is 26 ♜c2 bxc4 27 ♜xc4 ♜b7! 28 ♞d4!? (if 28 ♔e1 ♞g5 29 ♜d3 ♜be7 30 ♜c2 ♞e4 with enormous pressure) 28...♔xd4+! 29 ♚xd4 ♞f6 30 ♔c3 ♜xb3 31 ♜xf6 gxf6 32 ♚xf6 ♜xc3 33 ♚xc3 ♚b1+ 34 ♔f2 (34 ♚c1?? ♔e1+!) 34...♚f5+ 35 ♚f3 ♚e5 and White has enormous problems with his pawns, which cannot all be saved.

25...♚a7 26 ♜d1

Now Black can no longer improve his position and *must* strike before White has a chance to get out of trouble. The first move is not difficult.

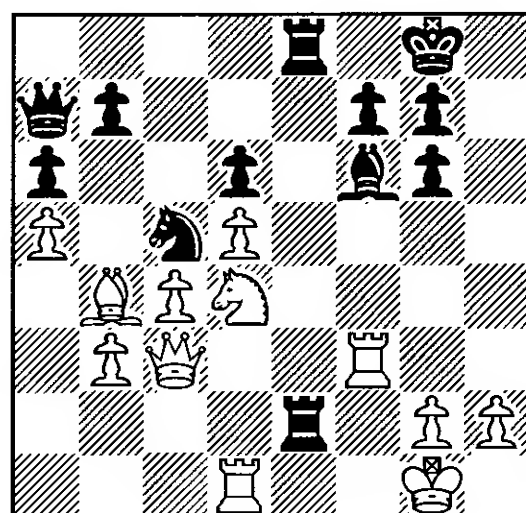
26...♞c5 27 ♚d2

This looks strange, but it is understandable if we try to follow the grandmaster's line of thought. 27 ♚c3 loses to 27...♞xb3 28 ♚xb3 ♔xd4+ 29 ♔h1 ♔c5 and White has no compensation for the pawn, while after 27 ♔xc5 ♚xc5 he has no defence on the dark squares. Having eliminated these possible candidates, White played the text move.

27...♞e2

This looks logical. An interesting alternative was 27...♞e4!? (found by Alexander Rosenkilde), when White is more or less forced to give up the exchange on f6, as 28 ♔xc5 ♚xc5 is horrible, and 28 ♚f2 loses to 28...♔xd4 29 ♜xd4 ♞e2 30 ♚h4 ♞xb3! 31 ♜xb3 g5 32 ♚g4 ♞2e4 and White's position collapses.

28 ♚c3



Sometimes, now is not tomorrow. – Esben Lund.

28...♙xd4+!!

Quite a surprising and paradoxical move. Black gives up his powerful bishop for the weak and pinned knight. All in the name of tactics of course.

I also calculated a long variation with 28...♙xb3 29 ♖xb3 ♙xd4+ 30 ♔h1 ♙c5 (30...♖b8! was an important move I missed, but I would still have rejected the line since Black is not well coordinated and White has counterplay against d6 and b7) 31 ♙xc5 ♖xc5 when, compared with 27 ♖c3, White has an extra option in 32 ♖xb7 ♔e1+ (32...f5 leaves Black with a structural advantage, but this is less than I was bargaining for) 33 ♔f1. At first I thought I could win with 33...♖f2!?, but instead of ending my analysis here, I looked for the opponent's move at the end of the variation and found 34 ♔dx1! ♔xe1 35 ♖c8+ ♔h7 36 ♖h3+ with perpetual check.

29 ♖xd4 ♔8e4

Winning the queen.

30 ♙xc5 ♔xd4 31 ♙xd4 ♖b8 32 ♔e3!

White needs to exchange the rook in order to protect his second rank. 32 ♔df1 ♖e8 33 ♔xf7 ♖xf7 34 ♔xf7 ♔xf7 is not an end-game White can survive.

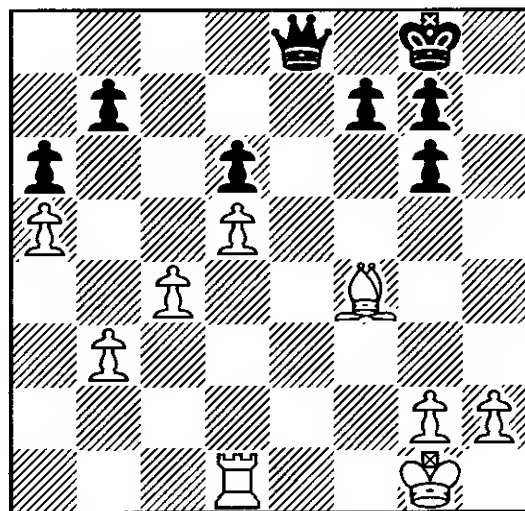
32...♔xe3

There is no choice. If 32...♔a2? 33 ♔de1 ♔f8 34 ♔e8+! ♖xe8 35 ♙xg7+ ♔xg7 36 ♔xe8 and Black has made trouble for himself.

33 ♙xe3 ♖e8 34 ♙f4!

My opponent was fully awake now and started to display some of his enormous strength. At this point I had 25 minutes remaining to reach move 40 and should have been cruising. My simple chess had won the queen for insufficient material and with just a little accuracy I should win. However, I was now getting tired and losing focus. So instead of sensing the critical moment, I decided on a long term plan. This was a great psychological and practical mistake, no matter the objective value of my long term planning. If I

want to make things easier for myself, it is better to expend some energy in calculating the win at the appropriate moment, rather than delaying it for a later occasion.



*When we have the advantage
we should be precise or we will lose it.*

34...♖e7?!

Thus I played a horrible, unambitious move. There are no real excuses though one can be produced. After the game Nataf showed me the following winning line: 34...♖e2 35 ♔f1 ♖a2 36 ♔f3 (36 ♙xd6 ♖xa5 also wins) 36...♖xa5 37 ♙xd6 ♖e1+ 38 ♔f1 ♖e3+ 39 ♔h1 ♖xb3 and Black wins. I had in fact seen all of this, but simply overlooked that 34...♖e2 35 ♔d2 is met strongly by 35...♖e1 mate. I did not spend much additional time on this position before writing this book, and as I partly expected it is actually much worse for White than it looks. Besides 34...♖e2 Black has other ways to terminate the game to his advantage, for instance 34...♖d8 35 ♔a1 ♖f6 36 ♔f1 ♖c3 37 ♙xd6 ♖xb3 and Black wins. But best of all I like 34...g5!? 35 ♙xd6 ♖e3+ 36 ♔h1 ♖xb3 37 ♔c1 ♖b2 38 ♔g1 ♖a2 and White is completely finished.

So Black has at least three directly winning lines, which could easily have been calculated accurately had I invested some energy in doing so. The problem was that I was getting tired and, facing a little resistance in the most

promising line, chose not to make a real effort calculating it. Not so strange, then, that things went as they did.

35 h4!

I was still under the impression that I just had to bring the king to d7, then the black queen would enter the white position and some pawn would drop off. This kind of thinking will be dealt with under the heading 'assumptions' in the next chapter.

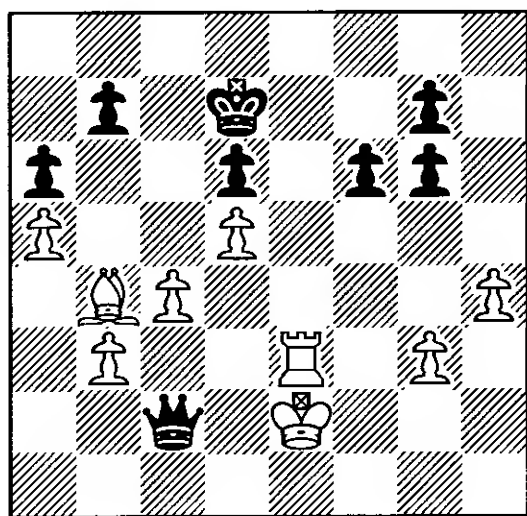
35...♙f8 36 g3 ♙e8

Even now after 36...♙e2!? 37 ♙xd6+ ♙e8 38 ♖b1 ♙e4 39 ♖f1 ♙e3+ 40 ♙g2 ♙xb3 Black is doing well.

37 ♙f2 ♙c7 38 ♖e1+ ♙d7 39 ♙g5 f6 40 ♙d2 ♙c5+ 41 ♖e3 ♙d4

Having reached the time control, I suddenly realised that things are not as easy as I had expected.

42 ♙c3 ♙g4 43 ♙d2 ♙d1 44 ♙b4 ♙c2+ 45 ♙e1 ♙b1+ 46 ♙e2 ♙c2+ ½-½



The position is still winning, but I could not see how and, with no fighting energy left, decided to end the game here. Nataf was very surprised when I offered him a draw, as he considered his position lost, but previous

experiences have taught me not to burn the bridge I am crossing when I am tired, as everything is happening in a very slow tempo and I might not get off the bridge before it falls apart.

After the game Nataf and I did not find it easy to find a winning plan, which states something about how tired we both were. The next day I did not find it difficult to see that Black needs to play ...b6, take it with the queen, get his pawn to a4 to undermine the c4-pawn and then Black will win a pawn. Later he will bring his king to h5 and push the g-pawn and in the end White will not be able to resist. But Nataf would probably not have allowed me to do all of this without a fight...

The question of when and what we should calculate is very difficult to answer. Obviously personality issues are connected to this question, just as to everything else in chess. There can be many ways of finding the same moves and can anyone say which method is the best? I believe in Dr. John Nunn when he says: 'Do not analyse unnecessary tactics!'. But when are tactics unnecessary and when are they necessary? There are positions where we can answer such questions without doubt, and there are positions where we can argue with good sense for any number of approaches.

I have tried to give some practical examples of critical moments where the need for extra effort could be deduced through both logic and analysis. It is a way of looking at chess which makes good sense to me, and which seems to be useful even in games against very strong players. I hope that this is also meaningful to others.

CHAPTER FOUR

Important Thinking Techniques

So far we have considered *candidate moves* in Chapters 1&2, and discussed when we need to calculate in Chapter 3. In this chapter I will go into more detail on the different thinking techniques we can use when calculating. In no way can I claim ownership of the main ideas below, but instead refer to those authors and theoreticians previously mentioned in this book, mainly Mark Dvoretsky (though he, like everyone else, owes a great deal to those before him). Anyone wanting to know more about these ideas and Dvoretsky's way of explaining them should read *School of Chess Excellence 2 – Tactical Play*. It is aimed at quite a high level, but if you put in the hours you will also get the power. (I know, I know...)

As I see it, there are two main ways of improving one's calculation. The first is simply to train it (see Chapter 8 on how to train calculation), and the second concerns approach and awareness. In the following I suggest different techniques that you can try to implement in your training. These are useful tools designed to enable us to look at the problems facing us in a different way, and quite often creating a different viewpoint will help us to solve them.

Many chess players have a great talent for different phases of the game and perform

well in tactics, positional play, endgames and openings, but still calculate badly. We have already discussed the importance of being able simply to look at the board and search for new ideas. Now we will discuss how to choose between the different moves we have at our disposal. The first thing we need to do is to become more concrete in our thinking.

Assumptions, blunders and other sins

Stupidity knows no age. – Esben Lund.

I have probably blundered as much as any other active player of my age and strength, perhaps even more, and know all about questions like 'what was I thinking?!' – as well as the obvious answer: 'I wasn't'. How often have we heard our friends complain about blundering, and not just once, but twice, three times, day after day. Some of this is psychology: if we blunder and then lose our belief in ourselves, it becomes easier to repeat the blunders. We expect ourselves to blunder at some point, which puts pressure on us so, though we do not want to blunder, we somehow program our brain to blunder. No wonder that it complies.

There can also be physical explanations for blunders. I once discovered a connection

between eating chocolate during the game and running out of energy about 30 minutes later with catastrophic results. As a result I hardly ever eat sugar-related foods before or during the games anymore. Not everybody reacts so strongly to instabilities in the blood sugar, but I think most would find they had a clearer mind and be able to concentrate for longer periods of time if they ate better. Being in good physical shape also helps of course. Not having a hangover is certainly recommendable, even though great chess art has been created with a heavy headache. Getting your sleep in advance of a tournament is sensible too.

All these things help to eliminate of blunders – which to me means unnatural oversights, not just simply tactical mistakes – and will certainly improve your quality of life too. But there are also ways of thinking that create blunders, even when we are playing our best chess. They are called *assumptions*.

Doroshkievich-Tukmakov

Riga 1970

English Opening

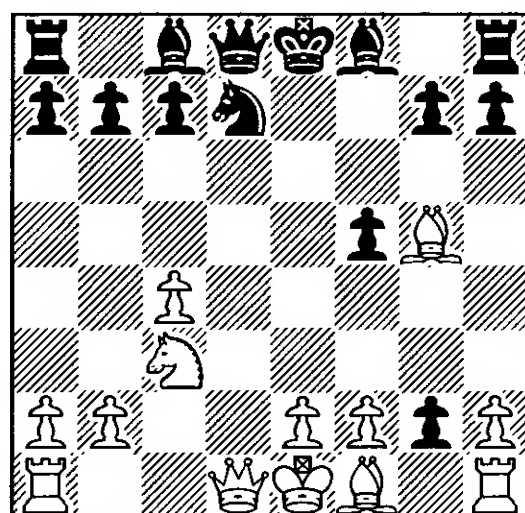
1 c4 e5 2 ♖c3 ♘c6 3 ♗f3 f5 4 d4 e4 5 ♙g5 ♗f6

Up to this point everything looks normal and had White now played 6 ♗d2 probably no one would remember this game. However, White decided to play actively and enter a mass exchange, which he expected to lead to a superiority in the centre. Unfortunately, what he did was to calculate only the most obvious moves in his head, forgetting that the opponent is not a passive collaborator but the antagonist, who will try to crush us if we give him the chance. Here White completely forgot that his opponent would look seriously at every move and be more than happy to find a mistake in his calculation.

6 d5? exf3 7 dxc6 fxg2 8 cxd7+ ♗xd7!

It is so easy to think that Black is forced to recapture with the queen or bishop, as the

knight is pinned. But once we start really to look at the position and think about the moves, instead of assuming anything, we will be able to avoid these kind of mistakes. This is why I say, *first of all, calculate wide, not deep*. The point is that whatever happens in the long run is not important, if you drop something here and now. First be sure that you know what is going on right in front of your nose, before you run away in long variations. This is best achieved by lowering the tempo at which we calculate.



In the game White must have felt completely exposed to the public in all his stupidity, just as we all have over and over again. He resigned.

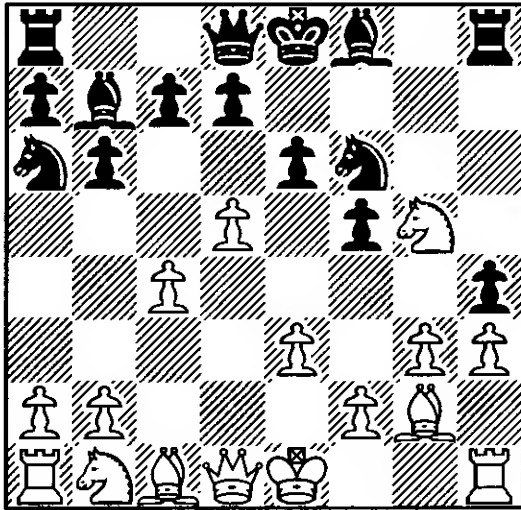
The following example was not played in a strong international tournament, like most other examples in this book, but between two amateurs. The reason for including it is that it illustrates a common mistake in many players' thinking, which prevents them from improving. Like so many other faults in chess thinking, it is caused mainly by laziness.

(see following diagram)

Sometimes surprises can throw us off balance and then it is important to stay alert. It is easy to lose balance when something surprising happens on the board. It seems fairly definite that Black had not anticipated...

Ziegler-Aschauer

Aschach 1999



10 ♖f7?!

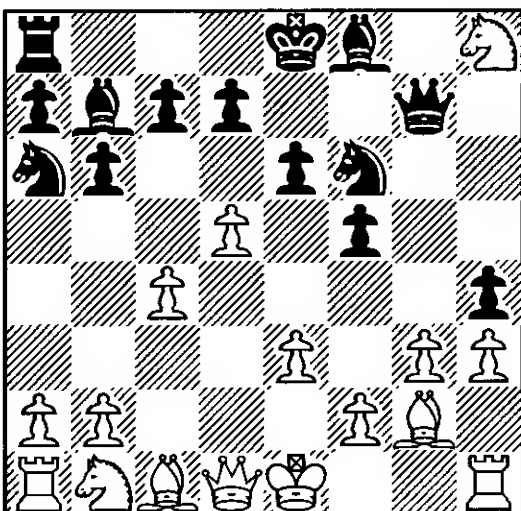
This move is not very good, but it wins the game almost at once. If Black had been able to keep his cool he would have seen through White's bluff. Correct was 10 0-0!, when Black would not have enough for his pawn.

10...♜e7?

Black should play 10...♞xf7! 11 dxe6+ dxe6 12 ♙xb7 (not 12 ♜xd8?? ♙xg2!! and Black gains a lot of material for the queen) 12...♜xd1+ 13 ♞xd1 ♞d8+ 14 ♖d2 (14 ♞e2 ♖c5 15 ♙c6 hxg3 16 fxg3 ♖fe4 is also very tasty for Black) 14...♖c5 15 ♙g2 hxg3 16 fxg3 ♖fe4 and Black has the initiative.

11 ♖xh8 ♜g7

Black had probably counted on winning back the knight and thereby gaining compensation, but he was in for a cruel shock.



12 ♖f7!

If it works once, it can work again!

12...♖c5 13 ♖e5

and White managed to win the game a rook up.

The point is that *you should never trust your opponent blindly*. We win games because our opponents make mistakes, including mistakes in calculation. Here Black could have gained an enormous advantage with the initiative – the most pleasant form of advantage to possess – after only 10 moves; instead he was a rook down after 12 moves, not so much because he overlooked that the knight could return to f7, but because he assumed he could not take it first time around. Obviously he saw that 10...♞xf7 11 dxe6+ would win the bishop on b7 and that the white bishop would then be forking rook and knight. But had he calculated a little further forward, he would have seen that his pieces come into play in a very nice way.

The lesson from this is: *Force yourself to be more concrete*. You cannot see a theme and then make assumptions about it. Chess is too complicated for us to guess our way through.

It is no better to believe that the opponent is stupid than it is to trust him blindly. In the following game the very talented American grandmaster Joel Benjamin, who seemingly got a long way in chess on raw talent, loses quickly to an even more talented player, the young Viswanathan Anand.

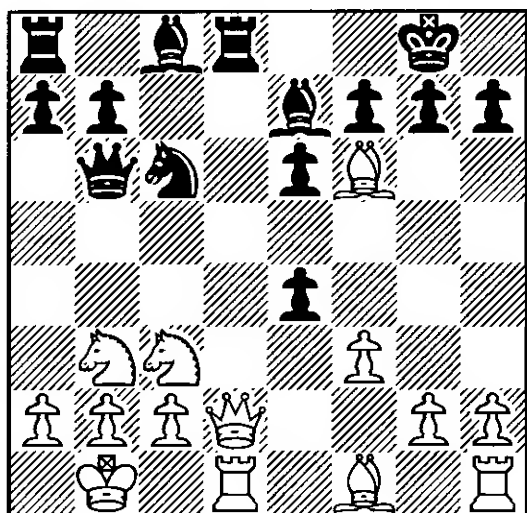
Anand-Benjamin

Wijk aan Zee 1989

Sicilian Defence

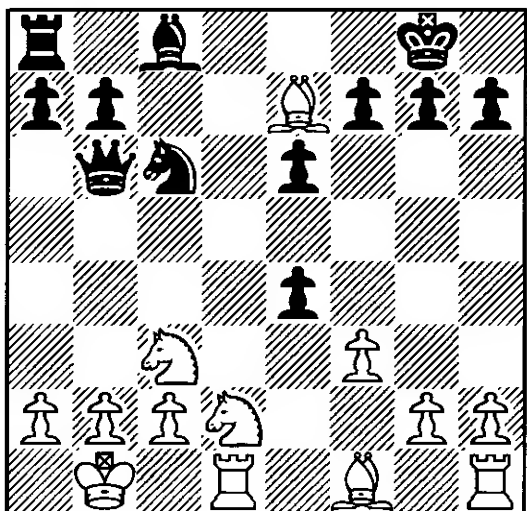
1 e4 c5 2 ♖f3 d6 3 d4 cxd4 4 ♖xd4 ♖f6 5 ♖c3 ♖c6 6 ♙g5 e6 7 ♜d2 ♙e7 8 0-0-0 0-0 9 ♖b3 ♜b6 10 f3 ♞d8 11 ♞b1 d5 12 ♙xf6 dxe4??

This mistake is due to assumptions. If Black had investigated the lines properly he would have realised his mistake in advance.



Theory seems otherwise to offer Black reasonable chances here. For example 12...♙xf6 13 exd5 ♙xc3 14 ♖xc3 exd5 15 ♜c5 d4! gave Black an acceptable game in Handke-Kveinys, Germany 2001.

13 ♙xe7! ♜xd2 14 ♘xd2!



It is not hard to guess that this move was somehow overlooked by Benjamin, or at least the consequences of it were. Or it might have been that he did not analyse the line all the way to the end – a form of mistake we will discuss in the next chapter.

14...exf3

If 14...♘xe7 15 ♘c4 ♜c7 16 ♘b5 wins.

15 gxf3?!

Here White should have played 15 ♘c4! ♜c7 (if 15...♜f2 16 ♘e4!) 16 ♙d6! after which there is no defence to be found for Black. Instead the rest of the game was a collection of errors.

15...e5 16 ♙h4? ♙e6 17 ♘de4 ♘d4 18 ♙g2? ♜c8 19 ♙f2 f5! 20 f4! fxe4 21 fxe5 ♜c4 22 ♜he1? ♜b4? 23 ♙c1! ♙g4? 24 ♘d5 ♜c5 25 ♘xb4 ♙xd1 26 ♙xd1! e3 27 ♜xe3 ♘f5 28 ♙d5+ ♙f8 29 ♜f3 ♜xb4 30 ♜xf5+ ♙e8 31 e6 1-0

When I talk about laziness in connection with decision making in chess, I see it as something not too different from physical sport. There comes a time when we meet some kind of resistance, where it requires an extra effort to rise to the occasion. In these instances it is easy to resort to assumptions as they use up little energy, but we need to force ourselves to concentrate and be concrete in our thinking. Over time our ability to be concrete will improve, just as our capability of producing oxygen increases when we take ourselves to the edge of comfort in physical training. The result is that the boundaries between our comfort and discomfort move, and we become able to concentrate for longer periods and keep our focus when needed in a tournament game. Therefore training in calculation is very important.

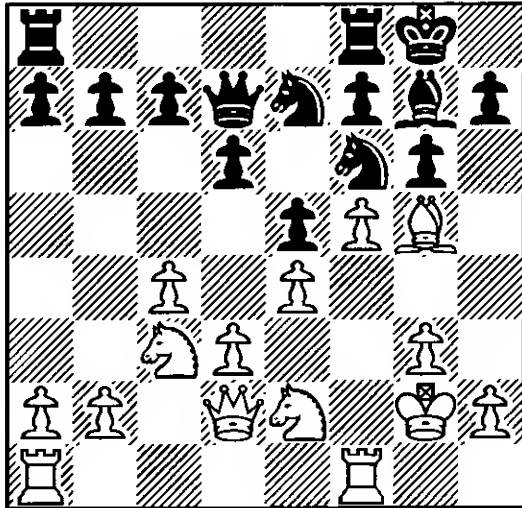
As I said above, this has a lot to do with the box within which we think. We need to expand our expectations of what is possible, and realise that there is nothing which is impossible. I have discussed this before in a chapter in *Excelling at Chess*.

Unforcing Thinking

One of the main defects in our thinking, which we have rid ourselves of so that chess positions can open themselves up to us in all their glory, is a *forcing* way of thinking. This is closely linked to *assumptions* and thus also to *blundering*. To think outside the box is basically what *unforcing thinking* is all about. It is to solve the problems in a concrete fashion instead of just following your first impulses. It is never knowing for sure that you have found the best move before you have gone really deeply into a position.

The most common form of unforcing thinking is in-between moves or *zwischenzugs*. The following is hardly anything special to a battle-hardened player, but to the beginner it can seem magical.

Miezis-Manievich
Zürich 1999

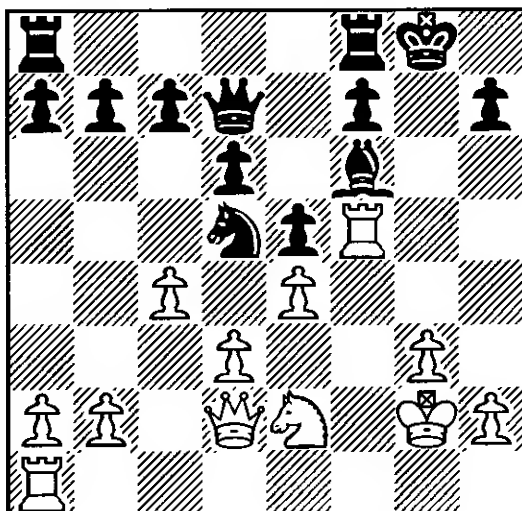


13...gxf5 14 ♖xf6 ♗xf6 15 ♘d5!

This move might surprise some people, but it is very natural indeed. White exchanges the black knight and in this way achieves superiority on the light squares. The next move is of course the real point.

15...♗xd5 16 ♖xf5!?

16 cxd5 would give Black the chance to contemplate 16...f4!?, which Miezis decided there was no reason to allow. White will win his piece back next move and keep his strong pressure down the f-file.



16...♗g7

Now White has a good knight vs. a bad bishop as well, so Black should have considered 16...♗e7 to keep his own knight, though his position remains untenable nevertheless.

17 cxd5 ♖a4 18 ♘c3 ♖b4 19 ♖af1 f6 20 ♖1f2 c6 21 ♖e2 ♖f7 22 ♖g4 ♖af8 23 ♖h5 ♖b6 24 ♖5f3 ♖d8 25 g4 ♖d7 26 ♖g3 a6 27 ♖f5 ♖e8 28 ♖h4 ♖d7 29 ♖h1 ♖h8 30 ♖h3 ♗g7 31 ♖f1 c5 32 ♖ff3 ♖h8 33 h3 ♖e8 34 ♖h2 1-0

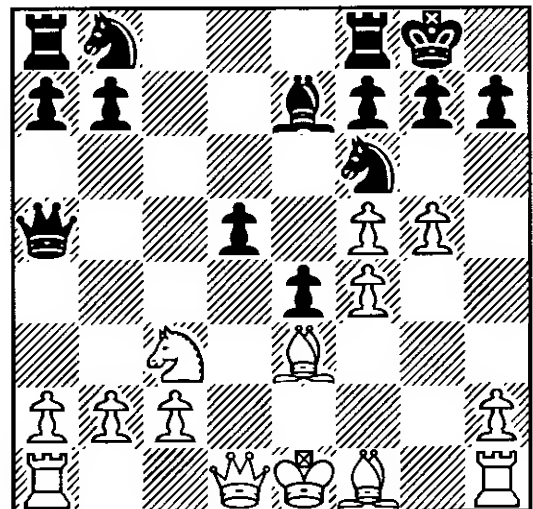
To think out of the box simply means that you remain open to every move in a position, that you try to take the position as it is, rather than how you might want it to be. You leave your assumptions at the door, realising that they are often nothing more than a representation of your own plan, and not that of the opponent.

De Firmian-Ehlvest
Reggio Emilia 1989
Sicilian Defence

1 e4 c5 2 ♘f3 e6 3 d4 cxd4 4 ♗xd4 ♗f6 5 ♗c3 d6 6 f4 ♗e7 7 ♖f3 0-0 8 ♗e3 e5 9 ♗f5 ♗xf5 10 exf5 ♖a5 11 g4?

This does not look sound.

11...e4! 12 ♖d1 d5 13 g5



A threat to the knight?!

13...♗c6!

Another interesting way to play the position was with the more forcing 13...d4!? 14 ♖xd4 ♘g4 15 ♜xe4 ♘c6 16 0-0-0 (not 16 ♙e2?! ♜fe8! 17 ♙xg4 ♙f6 18 ♜d3 ♘b4 19 ♜d2 ♙xc3 20 bxc3 ♘d5 and White is torn apart) 16...♜ae8 which gives Black good counterplay as well: while White has gained two pawns Black has mobilised all his forces.

13...♙a3?! is also thinking outside the box, with the idea 14 bxa3? ♜xc3+ 15 ♙d2 ♜xa3 16 gxf6 e3 17 fxg7 ♜e8 and Black gets a very strong attack against the uncastled white king, but after 14 ♙c1! there is no obvious way to proceed.

14 gxf6?

14 ♙d2 is met by the archetypal 14...e3!! and White cannot keep the centre closed. After 15 ♙xe3 (White cannot be unforcing himself as Black will not buy it: if 15 gxf6 ♙xf6! 16 ♙xe3 ♜fe8 17 ♜d2 d4 18 ♘e2 ♘b4! and White is outplayed) 15...♜fe8! (all Black cares about is development at this stage) 16 ♙d2 (16 gxf6 ♙xf6 transposes to the previous note) 16...♙c5+ 17 ♙e2 ♘g4 18 ♘e4 (or 18 ♜f1 ♜b6 and it will soon be all over) 18...♙b4! 19 c3 ♜xe4 20 cxb4 ♜b6 and Black wins.

White would do better to develop some pieces of his own and try to combat Black's plan instead of fighting his individual pieces. 14 ♙b5! was the best chance, even though White still appears to be in trouble. *Fritz* comes up with the wonderful 14...♙a3!? as a possible refutation. The main idea is 15 bxa3 ♘g4! (again an unforcing move) when White cannot play 16 ♜xg4?! ♜xc3+ 17 ♙f2 d4 as his position is torn to pieces, so he should probably try something calm like 15 ♙c1!? and there might still be hope; suddenly it will be possible to take on f6!

14...♙xf6 15 ♜d2

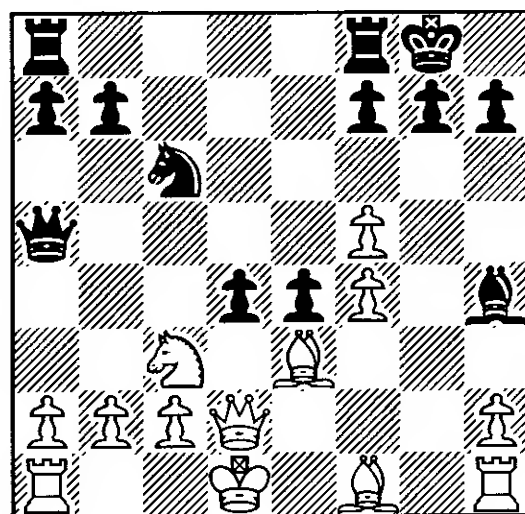
White tries to unpin the knight. Now 15...d4 is perfectly playable but Black was looking for something more. My computer is so fed up with the white position that it suggests 15 ♙e2!?, but this is not a real option as

after 15...d4 16 ♘xe4 ♜ae8 the white king is wide open and Black wins easily, e.g. 17 ♙g2 ♜xf5 18 ♙d2 ♜xe4+ 19 ♙xe4 ♜xe4+ 20 ♙f2 ♙h4+ 21 ♙g1 ♜e8 22 ♜h5 ♜e6 23 f5 g6 and it is about time to resign.

15...♙h4+ 16 ♙d1

If 16 ♙f2 e3! 17 ♜xe3 ♜fe8 and Black wins the queen, while 16 ♙e2 d4 17 ♘xe4 ♜xf5 looks no better than the game.

16...d4!



This now comes with greater force.

17 ♘xe4

17 ♙xd4 should also be analysed. Then Black has a very clear advantage after 17...♜ad8 18 ♘xe4 ♜xd4 19 ♙d3 ♜xf5 20 ♜e3 ♜fd8 and it is a miracle that White has not lost any material yet. But do not worry – he soon will!

17...♜xf5 18 ♘g3

After 18 ♙d3 dxe3 19 ♜xe3 ♘b4 White will have similar problems to those in the previous note.

18...♙xg3 19 hxg3 dxe3 20 ♙d3 ♜ad8!

Black is still awake and does not feel at all forced to exchange queens on White's terms.

21 ♜c3 ♜e4

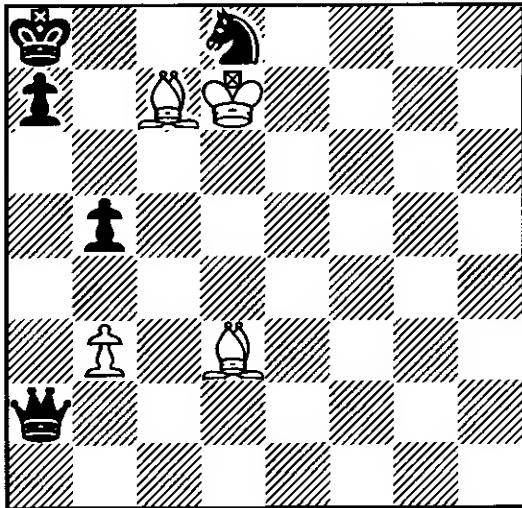
Black has many ways to win here, e.g. 21...♘e5!? 22 ♜xe5 ♜xd3+ 23 ♙e1 ♜xe5 24 fxe5 ♜d2 with a winning rook endgame, or 21...♜xd3+ 22 cxd3 ♜d8 23 ♙c1 ♜xd3 24 ♜c4 ♘d4 25 ♜e1 ♜d2 and the queen goes.

22 ♜g1 ♜xd3+! 23 cxd3 ♜d8 24 ♙c2 ♜xd3 25 ♜xd3 ♘b4+ 26 ♙c3 ♘xd3 0-1

One way to learn to think out of the box is to solve endgame studies. The following is a nice one with a surprising theme.

H.Rinck

Deutsche Schachzeitung 1902



*White is not doing too well,
but maybe there is still hope?*

1 ♖e4+ ♜b7 2 ♔c8

The first two moves had to be played, otherwise White had no counterplay, but what happens after...

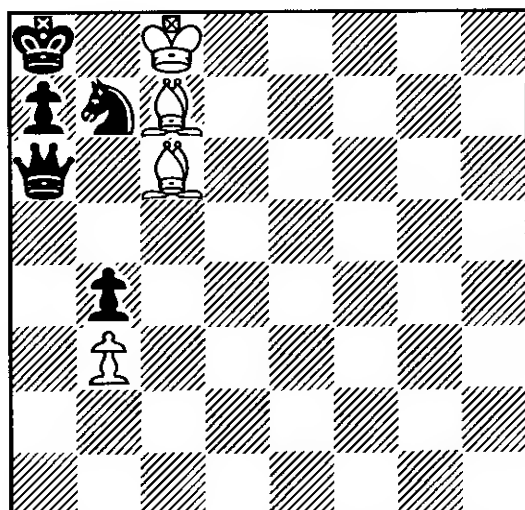
2... ♜a6 3 ♖d5!

Again the only move, but after...

3... b4

...it is easy to stop here and search in another direction. But White still has one possible move.

4 ♖c6!



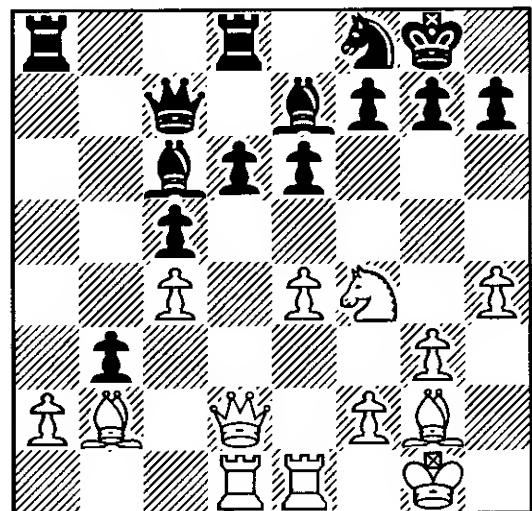
Now it is zugzwang. Black has no alternative to taking the bishop.

4... ♜xc6 stalemate.

Although very beneficial in the development of chess imagination, solving endgame studies is not a full training program in itself. Analysing your own games in detail with a strong chess-playing computer program can also free us from fixed ways of understanding and help us to see the game as it really is. The following is a good example.

Velicka-Jansa

Zlin 1997



Black has just taken the pawn on b3. White decides to rise to the occasion.

White uses the three piece rule to crack Black's defence: one piece to sacrifice, one to protect and one to deliver mate.

21 ♖xg7!? ♜xg7 22 ♜h5+ ♔g6!

Not 22... ♜g8? 23 ♜h6 and mates.

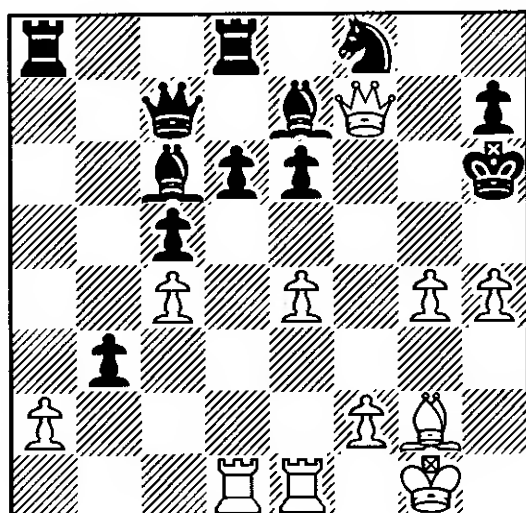
23 ♜f4!

With the idea of ♜g4+.

23... ♜xh5?!

Maybe not the best defence, but if 23...h6 24 ♜g4+ ♔g5 25 hxc5 hxc5 26 axb3 and White has a strong attack for nothing. One line could go 26... ♜h7 27 f4 ♜e7 28 f5+ ♜h6 29 ♜h3 g4 30 ♜h1 ♜h8 31 ♜f4+ ♔g7 32 e5 ♖xg2 33 f6+ ♜xf6 34 exf6+ ♜xf6 35 ♜xg2 and White should win.

24 ♜xf7+ ♔h6 25 g4!



It looks as if Black should be able to survive, but surprisingly it is not so.

25...♖a7 26 g5+ ♕xg5 27 hxg5+ ♖xg5 28 f4+ ♖g4

28...♔h6 29 ♖f6+ ♗g6 30 ♖e3 with mate.

29 ♕h3+! 1-0

Black resigned because of 29...♔xh3 30 ♖h5+ ♖g3 31 ♖g5+ ♖f3 32 ♖d3 mate.

At first sight this looks like a nice combination by White, which wins at least a piece. But closer inspection shows that Black should not follow these natural and seemingly forced lines. When defending it is especially important to step out from the most obvious variations, as these are usually the justification for the attacker's aggression. Of course these lines should be checked and mistakes in them exploited, but often we need to think out of the box.

In the example above, had he decided not to fall in with White's logic Black might have spotted some extra resources which would have kept the game very unclear indeed:

21 ♕xg7!? ♖xa2! 22 ♖e3

This seems to make little difference. 22...♔xg7? still loses to 23 ♗h5+ ♖g6 24 ♖f4 ♖xh5 25 ♖xf7+ ♖h6 26 g4 ♖d7 27 g5+ ♕xg5 28 hxg5+ ♖xg5 29 f4+ ♖h6 30 ♖f6+ ♗g6 31 ♖e3 e5 32 f5 and wins.

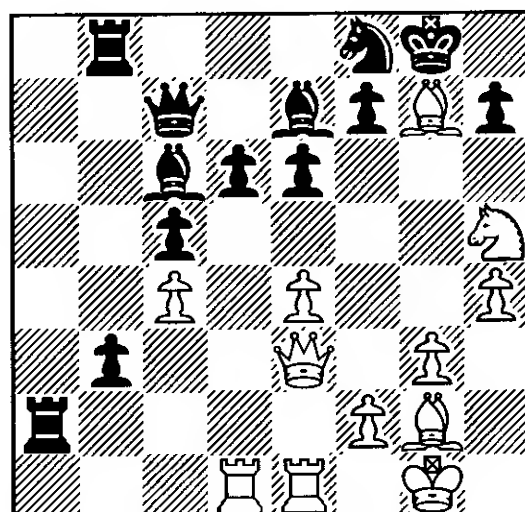
But Fritz wants to try the subtle:

22...♖b8!!

and there is no easy way for White to cre-

ate a quick mate. For example:

23 ♗h5



Black needs to defend the king, but how?

23...f6!

If 23...♗d7 24 ♖h6 ♖d8 25 ♕h3 b2 26 ♕xe6! and the attack will soon be irresistible.

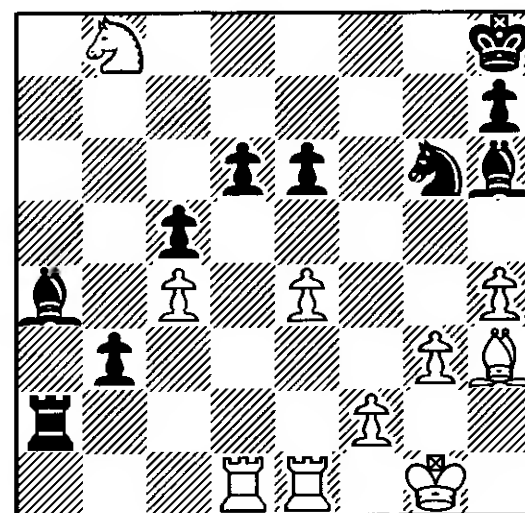
24 ♖h6 ♗g6

Not 24...b2? 25 e5! ♕xg2 26 exd6 ♕xd6 27 ♗xf6+ ♖f7 28 ♕xf8 ♖xf8 29 ♖xg2 and Black is in deep trouble.

25 ♕h3 ♖d7 26 ♕h8

Incidentally, you cannot expect a computer instantly to give you the right answers. It is just another tool to help you improve your thinking. Here it takes the computer a long time to understand that White is not cruising towards a full point, but is actually on his way into trouble.

26...♕f8! 27 ♗xf6+ ♖xh8 28 ♗xd7 ♕xh6 29 ♗xb8 ♕a4



30 ♖xd6!

White needs to fight for a draw here; if 30 ♖b1?! ♜e5 31 ♔g2 ♜xc4 and Black has a strong initiative.

30...b2 31 ♖b6 ♙c2 32 ♜d7 ♖a1 33 ♖f1 ♖xf1+ 34 ♙xf1 b1♚+ 35 ♖xb1 ♙xb1 36 ♙xe6 ♙xe4 37 ♜xc5

and the endgame should be a draw.

I do not present this as in any way conclusive analysis to the position, but at least this approach would have offered Black a much better chance of survival.

A recurrent theme of outside the box of thinking is:

Desperados

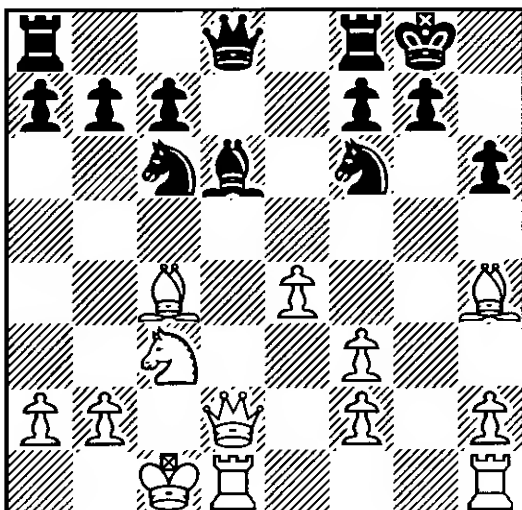
A *desperado* is a move that achieves a position in which more than one capture is possible, and valuable pieces will try to sell their skin as dearly as possible. The following classic game, which was one of the first tournament games a computer won against a grandmaster, illustrates this theme very well.

Miles-Deep Thought

Long Beach 1989

Queen's Gambit Accepted

1 d4 d5 2 c4 dxc4 3 e4 ♜f6 4 ♜c3 e5 5 ♜f3 exd4 6 ♚xd4 ♙d6 7 ♙xc4 0-0 8 ♙g5 ♜c6 9 ♚d2 h6 10 ♙h4 ♙g4 11 0-0-0 ♙xf3 12 gxf3

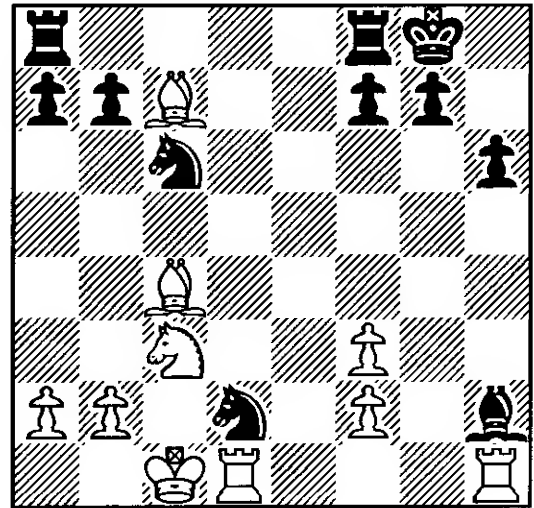


What surprise did Black have in store for the English grandmaster?

12...♜xe4!

Exploiting the unprotected bishop on h4.

13 ♙xd8 ♜xd2 14 ♙xc7 ♙xh2!!



A wonderful desperado – the bishop sells itself for a pawn, as the white bishop will continue to hang on c4. Instead if 14...♙xc7 15 ♙xd2 and White is only very slightly worse and will probably escape with a draw.

15 ♙xh2 ♜xc4

The resulting endgame holds no real hope for White.

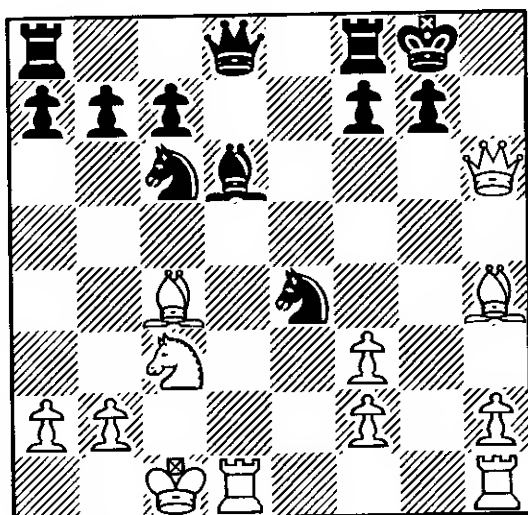
16 ♜d7 b6 17 f4 ♖ad8 18 ♖hd1 ♖fe8 19 b3 ♖xd7 20 ♖xd7 ♖e1+ 21 ♜d1 ♜4a5 22 ♜d2 ♖h1 23 ♙g3 h5 24 f5 h4 25 ♙f4 ♜b4 26 a3 ♜bc6 27 ♖d3 ♜d4 28 b4 ♜ac6 29 f6 gxf6 30 ♜c3 ♜e6 31 ♜d5 ♙g7 32 ♙d6 ♜g5 33 ♙e2 h3 34 ♖d1 ♖xd1 35 ♙xd1 ♜e5 36 ♜e3 h2 37 ♜f5+ ♙g6 38 ♜g3 ♜e4 0-1

A very impressive win from the computer program, whose descendent later went on to beat Garry Kasparov. But actually White could still have saved the position after 12...♜xe4 with the counter-desperado 13 ♚xh6!!

(see following diagram)

After this it appears that White keeps the skin on his teeth: 13...gxf6 14 ♙xd8 and then if 14...♜xf2 15 ♖hg1+ ♙h7 16 ♙f6 ♙f4+ 17 ♙c2 ♙g5 18 ♜d5 ♜xd1 19 ♙d3+

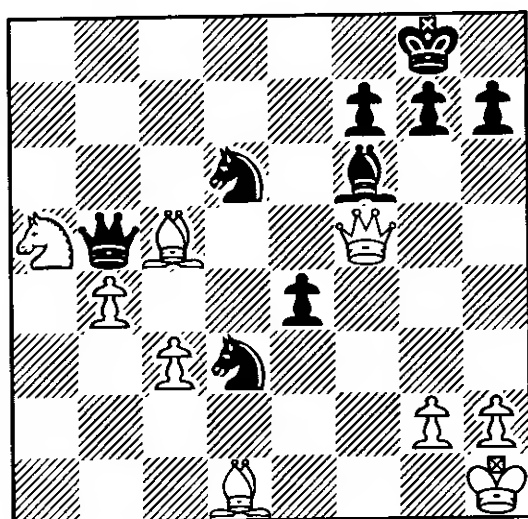
♔g8 20 ♕xg5 hxg5 21 ♖xg5+ ♔h8 22 ♖h5+ ♔g8 with a draw, or 14...♗fxd8 15 fxe4 with a roughly equal position.



The following desperado shows how complicated these things can be.

Liberzon-Dlugy

Palma de Mallorca 1989



White to play. Desperado time.

Here White could have kept his position alive with 35 ♖d5! ♕xc5 36 c4!! when Black has no way to win the game straight away, albeit several ways to keep the advantage, one of which is 36...♖b6 (36...♖e8 37 bxc5!? is not completely clear) 37 ♖a8+ ♖d8 38 ♖xd8+ ♕xd8 39 bxc5 ♕e8 and Black looks better, but how much?

Instead of this the game ended quickly.

35 c4? ♖xb4!!

This desperado wins the game. Others:

a) 35...♖xa5? 36 bxa5 ♕xf5 37 a6 and White wins.

b) 35...♖xc5 36 ♖xc5 ♕xc5 37 bxc5 with a slight edge for Black.

c) 35...♖xc4 36 ♕xd6 ♖c1 37 ♖f1 ♖xd1 38 ♖xd1 ♕f2+ 39 ♔g1 ♕xd1 is unclear.

36 ♕xb4 ♕xf5!

White is lost. The twin threats of ...♕xb4 and ...♕f2+ decide the game.

37 g4 ♕d4 0-1

What you often see in desperados is that one player steps out of the 'I take anything I can' forcing variations at an appropriate moment. The following wonderful performance in a rapid game by the father of one of the stronger juniors in my local area illustrates this well.

Skovgaard-Haubro

Copenhagen (rapid) 1998

Ruy Lopez

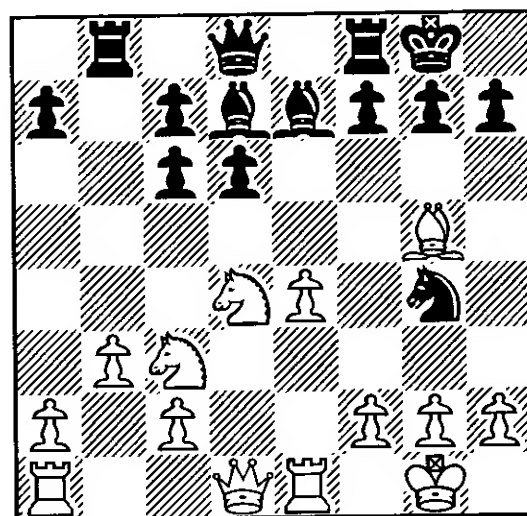
1 e4 e5 2 ♖f3 d6 3 d4 exd4 4 ♕xd4 ♕c6

Not a very theoretical opening, but with the next move we return to normal lines.

5 ♕b5 ♕d7 6 ♕xc6 bxc6 7 ♕c3 ♕f6 8 0-0 ♕e7 9 ♖e1 0-0 10 ♕g5

10 b3 is another way to develop.

10...♖b8 11 b3 ♕g4?



Spot the desperado!

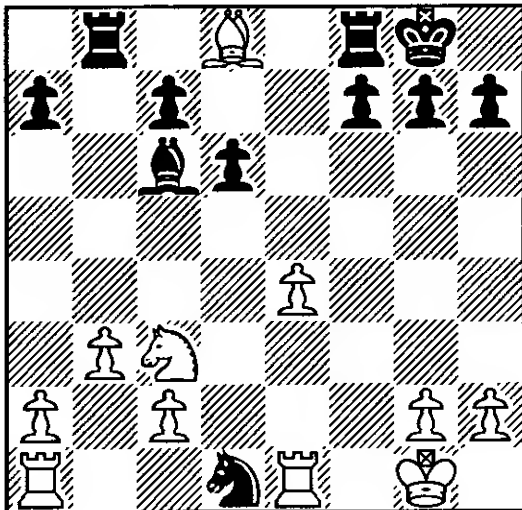
12 ♖xc6!!

Only like this. The idea is to remove the protection of the knight on g4 and simply grab a pawn. If White had changed the move order, it would have been Black who played the desperado: 12 ♙xe7 ♜xe7 13 ♖xc6?? is met by 13...♜f6! winning material, since after 14 ♖xb8 ♜xf2+ 15 ♙h1 ♜h4 White has to give up the queen by 16 ♜xg4, as 16 ♙g1 ♜xh2+ 17 ♙f1 ♜h1+ 18 ♙e2 ♜xg2+ 19 ♙d3 ♜g3+ 20 ♙c4 ♖e5+ leads to mate.

12...♙xc6 13 ♙xe7 ♖xf2

Otherwise White just won a pawn. This is a true desperado scenario. Both players have pieces hanging and they are trying to sell themselves as dearly as possible.

14 ♙xd8 ♖xd1



So what was the point of all of this?

15 ♖d5!!

The white knight removes itself from the possibility of being captured and indicates a check on e7. The idea behind the move, and the entire combination, is that the knight is better lost on d5, where the bishop will be hanging later, than on c3, where the knight can capture it on its way out.

15...♜bxd8?

After this White wins the exchange. The only move was 15...♙xd5 16 ♙xc7 ♜bc8 17 ♙xd6 ♜fe8 18 ♜axd1 ♙xe4 19 c4 and White has excellent winning chances with his extra pawn in the endgame.

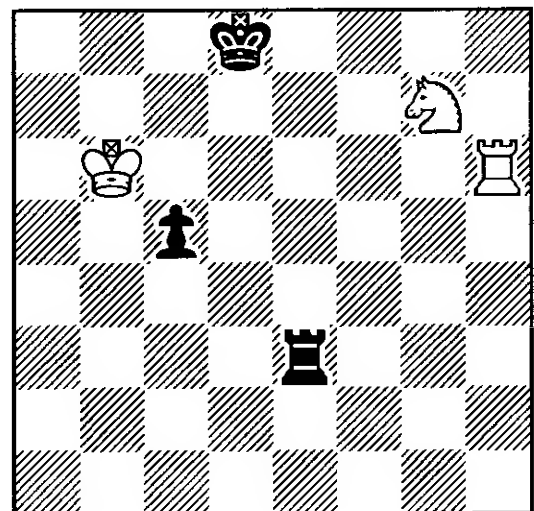
16 ♖e7+ ♙h8 17 ♖xc6 ♖c3 18 ♖xd8 ♜xd8 19 ♜e3 ♖b5 20 e5 ♖d4 21 exd6 cxd6 and White won.

Domination

An important facet of chess understanding is the feeling for domination, for when the pieces are able to dominate each other. A lot of calculation is unforcing because it relies on the domination of the opponent's pieces. The following study is a beautiful illustration of what domination is all about.

L.Topko

Ceskoslovensky Sach 1999



Usually rook and knight vs. rook is a dead draw, but here the white king is able to hide behind the black c-pawn and create continuous threats against the opposing king.

1 ♜d6+ ♙c8

If 1...♙e7 2 ♖f5+ wins.

2 ♖e6 ♜b3+

Black has little choice. The threat of mate or a threat to the queen is often as useful as a check when calculating variations, as the opponent is no less limited in his options.

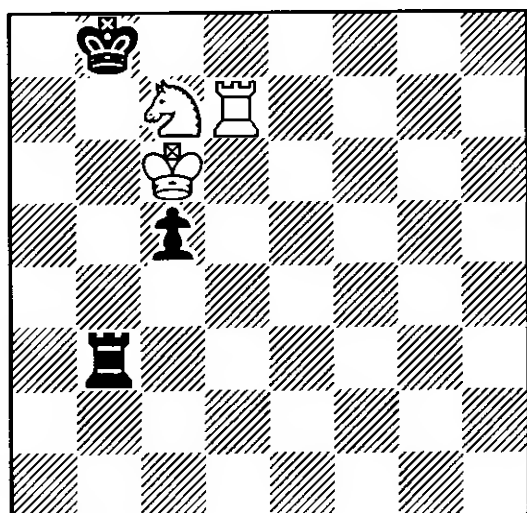
3 ♙c6 ♙b8 4 ♜d8+ ♙a7 5 ♜d7+!

White keeps the black king under control. Now if 5...♙a6 6 ♖xc5 wins the rook.

5...♙b8

If 5...♙a8 6 ♖c7+ ♙a7 7 ♖b5+ and mate next move.

6 ♖c7!



Threatening 7 Rxd8+ leading to mate. Black again has only one move.

6...Kc8 7 Re7!

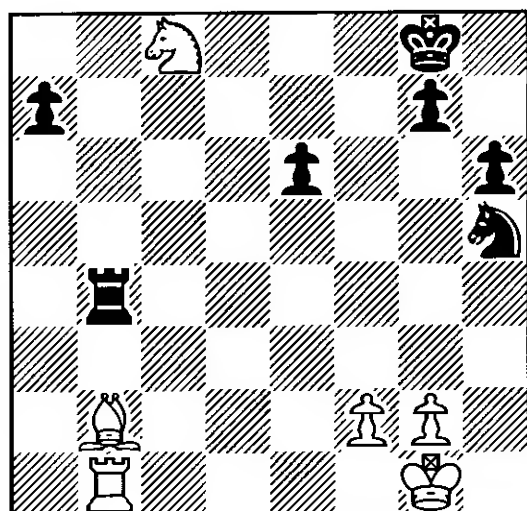
Not 7 Rh7? Kd8 8 Rh8+? allowing the king to escape to e7; instead 8 Rd7+ would repeat moves and still win the game.

7...Rd3 8 Nd5 Kd8 9 Rd7+ 1-0

White wins the black rook with a knight check on the next move.

Many studies have been devoted to the theme of domination. This is not due solely to its aesthetic qualities, but because it is also an important aspect of the endgame. The following play by Peter Leko is very impressive. Notice how he constantly removes all Black's play by dominating the black knight.

Leko-Bareev
Dortmund 2002



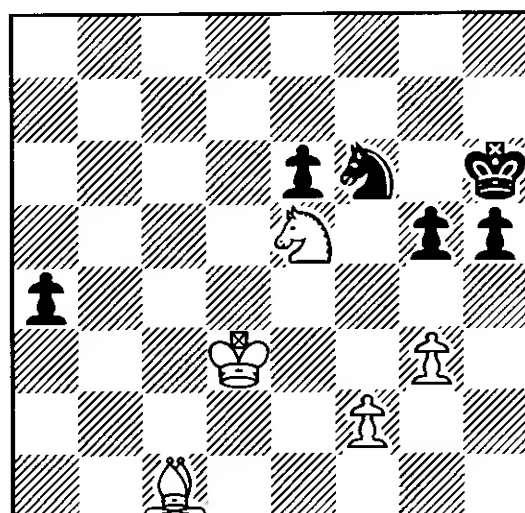
35...Nf4 36 Ne7+ Kh7 37 Nc6 Bb3 38 Ne5! a5

38...Ne2+ 39 Qf1 Nc3 does not win the exchange, since White has 40 Rc1! when he remains a piece up.

39 g3 Nd5 40 Nc4 Nb6 41 Nd2 Bb4 42 Qc3 Rxb1+ 43 Nxb1 a4 44 Na3 Nd5 45 Qb2 g5 46 Nc4 h5 47 Ne5 Nb4 48 Qf1 Nc2 49 Qe2 Kh6

If 49...a3 50 Qd2 axb2 51 Qxc2 Kg7 52 Qxb2 Qf6 53 Nf3 Qf5 54 Nh2! Qe4 55 Qc2 and White wins.

50 Qd3 Nb4+ 51 Qc4 Nd5 52 Qc1 Nf6 53 Qd3!



Leko is well known for his superb endgame technique. Here, instead of winning a pawn with 53 Nf7+ Kg6 54 Nxe5, he removes all hints of counterplay.

53...Nh7 54 Qe2 Kg7 55 Nd7 Qg6 56 Nc5 Qf5 57 Qf3 Nf6 58 Nxa4 h4 59 gxf4 gxf4 60 Nc3 Ng4 61 Ne2 Ne5+ 62 Qg2 Nd3 63 Qe3 Qg4 64 f3+ Qf5 65 Nc3 e5 66 Ne4 Ne1+ 67 Qf2 Nc2 68 Qe2 Nd4+ 69 Qxd4 exd4 70 Qf2 Qe5 71 Nc5 Qd5 72 Nd3 Qc4 73 Ne5+ Qc5

If 73...Qd5 74 Ng6 wins.

74 Qg2 Qd5 75 Ng6 d3 76 Qf2 d2 77 Qe2 Qd4 78 Nxe4 1-0

All this is very well, but as Leko writes in his annotations, Bareev had a good chance of keeping White in the unpleasant pin by

dominating the white knight with:

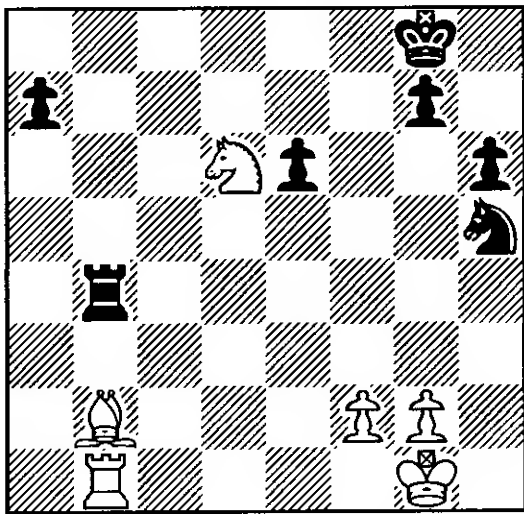
35...♖b7!!

Now Black has serious threats like ...a7-a5-a4-a3 and ...♘h5-f4-d3, in both cases regaining the piece. If White wants to avoid this, he can try to escape with the knight.

36 ♘d6

Now 37 ♘c4 is coming, after which White will be able to untangle himself and proceed to exploit the extra piece. But Black can continue his domination of the knight with the amazing:

36...♖b4!!



The knight has nowhere to go, and the pin is still very much a reality, so the outcome would probably be a draw by repetition of moves:

37 ♘c8 ♖b7 38 ♘d6 ♖b4

Domination is a part of chess thinking unappreciated by many players. Often when I have analysed with players who know much more about chess than me, I have sensed little awareness of this part of the game which has given me many extra points over the years.

But let us now move from techniques on the board to techniques in our heads. Let's start with one of the most important tools in chess thinking.

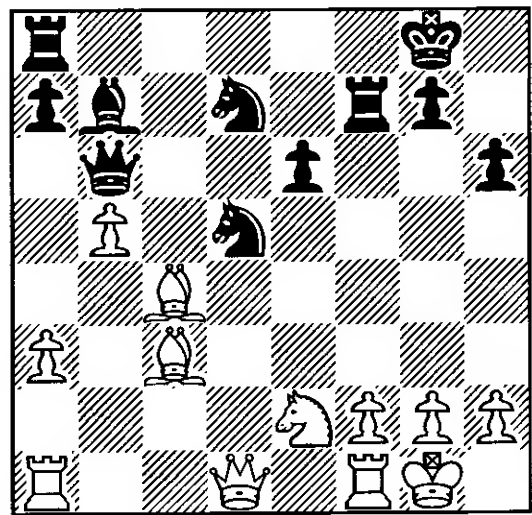
The Reversal of Moves

At the beginning of a tournament in Budapest, Esben Lund and I talked about the

reversal of moves in different tactical variations as a possible important thinking tool. During the tournament situations arose again and again that confirmed our attention to this idea. Later it was easy to see the importance this idea could have for practical play and for deciding upon a move. As a prime example Esben showed me the following position:

Timman-Unzicker

Haifa Olympiad 1976



Black to move. What combination did he execute?

Black has a combination, but its consequences are not completely clear.

20...♘e3! 21 ♙d4!

Candidates! Did you anticipate this response?

If instead 21 fxe3 ♖xe3+ 22 ♙h1 ♖e4! 23 ♖g1 ♖xc4 and the pressure down the long diagonal is very uncomfortable for White, besides which there is the small problem of the pawn. I think it is dubious whether or not White can keep his position together.

But notice how this little line is again a matter of candidates, e.g. 22...♖h3? 23 ♘f4! (Jonathan Feydi) 23...♖xf4 24 ♙xe6+! and White is better. So once more, *by calculating more slowly* and seeing 22...♖e4 *we actually save time!*

21...♘d1 22 ♙xb6

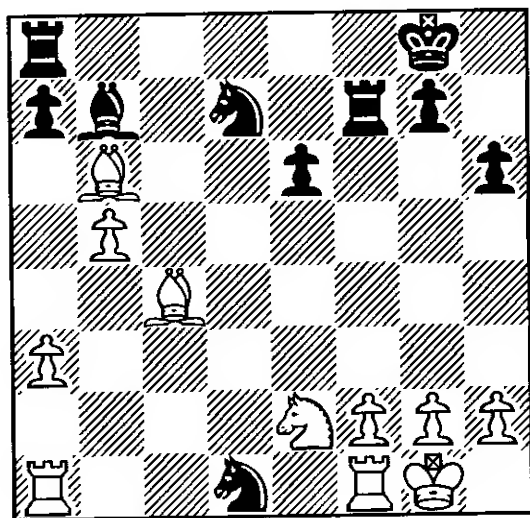
Here Black would like to play 22...axb6 23

♙xe6 ♘b2 and end up with two pieces for a rook with solid control over the c5-square. Unfortunately White would simply respond 23 ♖fxd1. Therefore Black decided to force White to take on e6 by recapturing with the knight.

22...♘xb6

Now the game faded to a draw.

23 ♙xe6 ♘b2 24 ♖fc1 ♙d5 25 ♙xf7+ ♙xf7 26 ♘d4 ♘2a4 27 h3 a6 28 bxa6 ♖xa6 29 ♖ab1 ♖a7 30 ♖b4 ♙h7 31 ♘b5 ♖a5 32 ♖c7 ♙e8 33 ♘d6 ♙g6 34 ♖c6 ♘d7 35 ♖c7 ♘ab6 36 ♘c4 ♘xc4 37 ♖bxc4 ♘f6 38 ♖c3 ♙e8 39 ♖b3 h5 40 ♖bb7 ♙d7 41 ♖a7 ♖d5 42 a4 ♖d1+ 43 ♙h2 ♖d2 44 f3 ♖a2 45 h4 ♙g8 46 a5 ♙f8 47 ♖c5 ♙f7 48 ♖e5 ♙f8 49 ♙g3 ♙e8 50 ♖a8 ♙f7 51 ♖a7+ ♙f8 52 ♖b7 ♘d7 53 ♖g5 g6 54 ♖b4 ♙f7 55 ♙f4 ♘f6 56 ♖d4 ♙e7 57 g3 ♘d7 58 ♖b5 ♘f8 59 ♖e4+ ♘e6+ 60 ♙e3 ♖a3+ 61 ♙f2 ♖a2+ 62 ♙e3 ♖a3+ 63 ♙e2 ♖a2+ 64 ♙d3 ♙d6 65 ♖c4 ♙e8 66 ♖b6+ ♙d5 67 ♖c8 ♙d7 68 ♖g8 ½-½



Why don't you reverse the move order?

22...♘b2!! was Esben's improvement. By reversing the move order Black gets his desired position with the advantage after 23 ♙xe6 axb6. This could also be treated under *desperados*, as there is a certain amount of hanging pieces. And just as in the desperado examples above, Black gets the advantage by side-

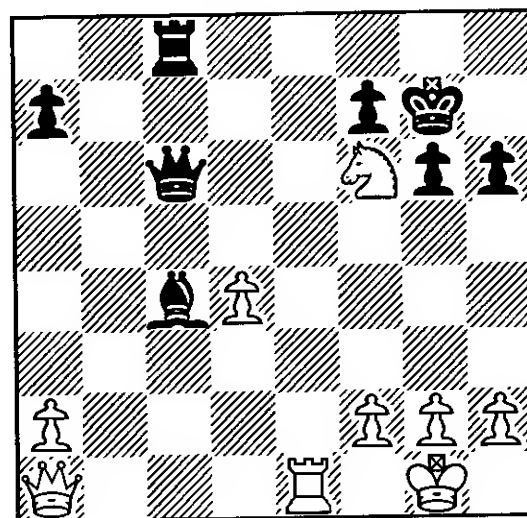
stepping the bonehead exchanges and refraining from taking the bishop immediately.

As I said, once we became aware of the power of changing the move order in a standard variation, we soon noticed how often this technique allowed simple, yet surprising combinations.

The following example is a small favourite of mine.

L.B.Hansen-Campora

Biel 1991



Just reverse the move order!

Here the natural continuation is 28 d5 followed by 29 ♘e8+ winning, but Black can defend against this with 28...♙xf6 and wins. So White decides to change the move order.

28 ♘e8+! ♙g8

28...♖xe8 29 d5+ is no improvement for Black. After 29...♙f6 30 ♙xf6+ ♙xf6 31 ♖xe8 he has no chance of saving the game.

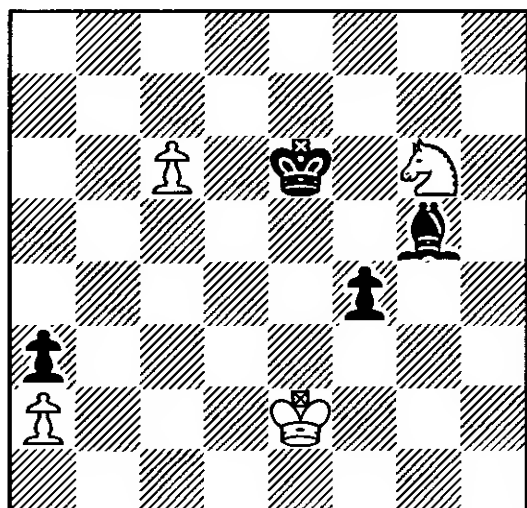
29 d5

This double threat decides the game.

29...♙xe8 30 ♖xe8+ ♖xe8 31 d6 ♖d8 32 ♙f6 ♖d7 33 a4 ♙e6 34 ♙d4 ♖b7 35 h3 a5 36 ♙h2 h5 37 ♙e5 ♖d7 38 ♙g3 ♙h7 39 f3 ♙b3 40 ♙b5 ♙e6 41 ♙e5 ♙b3 42 ♙xa5 ♖xd6 43 ♙b4 ♖d3 44 ♙b5 h4+ 45 ♙h2 ♖e3 46 a5 ♙e6 47 a6 ♖a3 48 ♙b7 ♖b3 49 ♙e7 ♖b5 50 a7 ♖a5 51 ♙xh4+ 1-0

Even in games between strong players this technique is important and, if missed, will cost points:

Leko-Kasparov
Bled 2002



Reverse the move order!

Short of time Peter Leko failed in slaying the giant (physically Kasparov is small, but mentally...!). The game concluded:

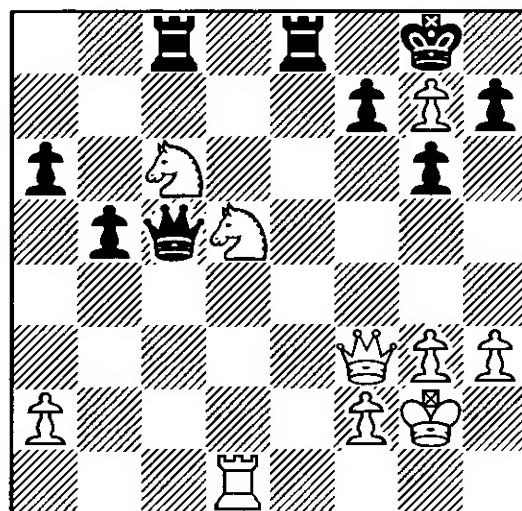
53 ♖e5?? ♔d8 **54** ♖c4 ♕d5 ½-½

Later Leko was not too bothered about missing the win, as he felt that it was just luck that he had the chance in the first place. The line 53 c7 ♕d7 54 ♖f8+ only leads to a draw after 54...♕c8!

But reversing the moves prevents this defensive manoeuvre and White wins by 53 ♖f8+! ♕d6 54 c7 ♕xc7 55 ♖e6+ and the bishop is lost. The reversal of moves is very important. Do not forget it!

Tetenkina-Aagaard
Sweden 2003

In this position I thought I was heading for a draw in any variation, but I forgot to take reversal of the moves into account. Had I played 24...♖xc6 25 ♖f6+ ♖xf6 26 ♕xf6 ♕e7 27 ♕xa6 ♕e4+ 28 ♔g1 ♕f3 29 ♖f1 ♕f5, I would never have lost. Instead I swam like an axe, as the Russians say.



24... ♕xc6?? **25** ♖f6+ ♔xg7 **26** ♕xc6!

This is easy to miss. Why exchange queens when you can take a rook with check?!

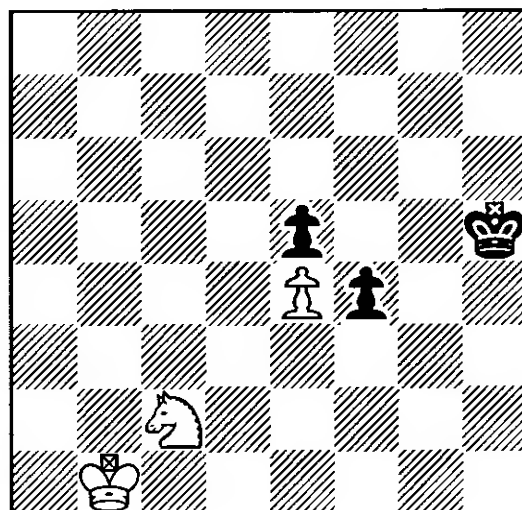
26... ♖xc6 **27** ♖xe8+ ♔f8 **28** ♖d6 ♖c2 **29** a4 bxa4 **30** ♖a1 ♔e7 **31** ♖e4 ♖c4 **32** ♕f3 f5 **33** ♖d2 ♖c3+ **34** ♕e2 1-0

Comparison

Often we have two (or more) possibilities at our disposal and, because of a shortage of time, or our own limitations, we are unable to calculate them all the way to the end. In such cases, if they happen to be variations upon the same theme, it can be really useful to compare the possibilities with each other in order to make a more informed decision.

D.Blundell

1st prize, Diagrammes 1994



Compare 1 ♖a1 and 1 ♖a3.

I like this example very much for illustrating comparison. White needs to get his knight to d2, from where it will defend the e4-pawn and the promotion square f1. This can be done either by ♖c2-a1-b3-d2 or ♖c2-a3-c4-d2. It is humanly possible to calculate the lines, but they are not that easy to keep under control. Therefore it is good to have the extra tool of comparison to assist our evaluations.

1 ♖a1!

The white king needs the c4-square in order to win the game, as can be seen in the analysis of the alternative:

1 ♖a3? f3 2 ♖c4 ♖h4! (Black needs only to avoid the mined square g4 in order to make the draw; 2...♙g5!? 3 ♖c2 ♙g4 4 ♖d3 f2 5 ♖d2 ♖f4 is also sufficient, transposing below) and now:

a) 3 ♖c1 ♙g3 4 ♖d2 f2 5 ♖e3 ♙f3 6 ♖d3 ♙g3 and White cannot win.

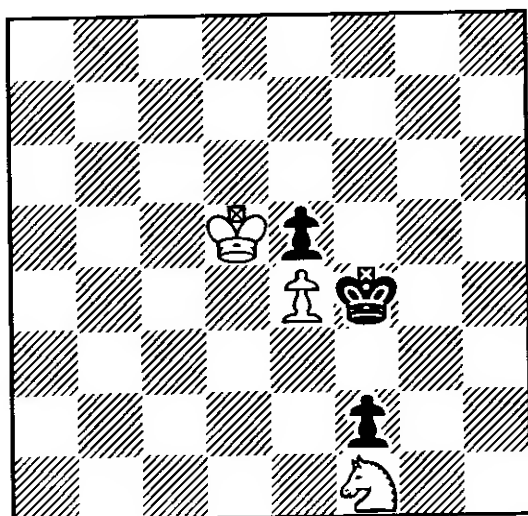
b) 3 ♖c2 ♙g4 4 ♖d3 ♖f4 5 ♖d2 f2 6 ♖e2 f1 ♖+ 7 ♖xf1 ♖e3 and White cannot win.

c) 3 ♖b2 ♖h3! 4 ♖c3 (or 4 ♖b3 ♙g2 5 ♖c2 f2 6 ♖e3+ ♖f3 7 ♖d3 ♙g3 and White cannot win.). 4...♙g3! and White is in zugzwang. Had the knight been on b3 here, then 5 ♖c4! would win without any resistance, as can be seen after 1 ♖a1.

1...f3 2 ♖b3 ♙g4 3 ♖c2 ♙g3

If 3...♙f4 4 ♖d3 ♙g3 5 ♖e3 ♙g2 6 ♖d2 f2 7 ♖e2 ♙g3 8 ♖f1 wins.

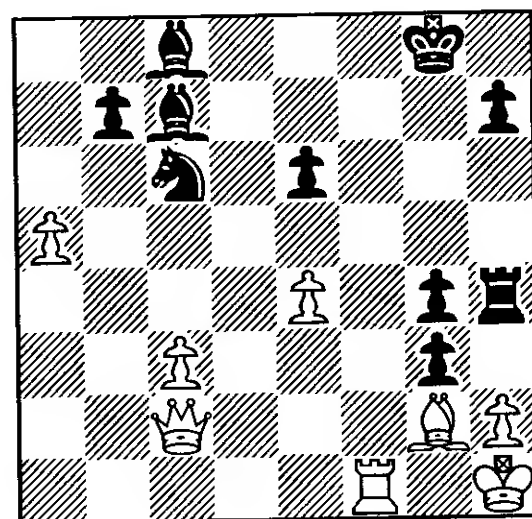
4 ♖c3 ♙g4 5 ♖c4 ♙g3 6 ♖d5 ♖f4 7 ♖d2 f2 8 ♖f1 and White wins.



I find that studies often show different themes in a very clear form, but they hold the danger that the student comes to believe that the themes and methods are unreal, and only arise in the fantastic universe of chess studies, where the pieces seem to move differently. This is, however, untrue. Studies relate to chess, just as novels and movies relate to life. They are constructed situations focusing on the more intense aspects of our existence.

The following example is taken from analysis to a game, in which Black could have achieved the diagrammed position.

from analysis of
Ponomarev-Al Modiahki
Las Vegas 1999



The tempting ...♖xh2+ can wait, as the white king would get the chance to run away to f1. Instead Black should take control over the g1-square with his bishop. This can be done from a7 or c5. In order the two moves ♖d6 and ♖b8, it is necessary to calculate the forced line and foresee where the bishop is best placed.

31...♖b8!

The right square, as the following shows:

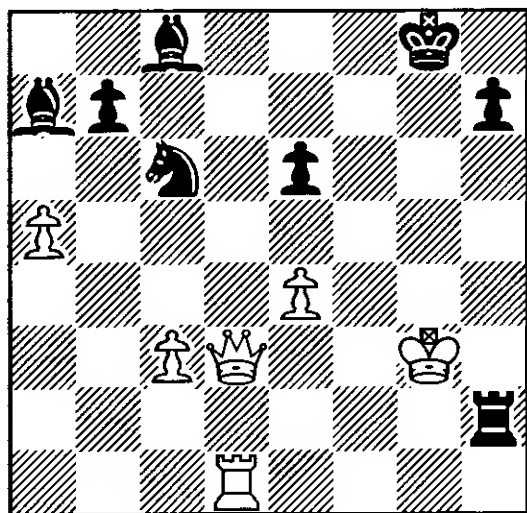
32 ♖d1 ♖a7 33 h3

Forced.

33...gxf3 34 ♖d3

If 34 ♖f3 ♖e5 35 ♖d8+ ♖g7 and White has no defence against ...♖xf3 and ...g2+.

34...hxf3 35 ♖xf3 ♖h2+ 36 ♖xf3



The difference!

36...♙b8+!

Had the bishop been at c5, there would be no check on d6. These kind of things cannot be predicted, but can be understood using the method of comparison along with accurate calculation. Now Black wins after:

37 e5 ♙xe5+ 38 ♖g4 ♙xc3!

And White has no defence, e.g. ...

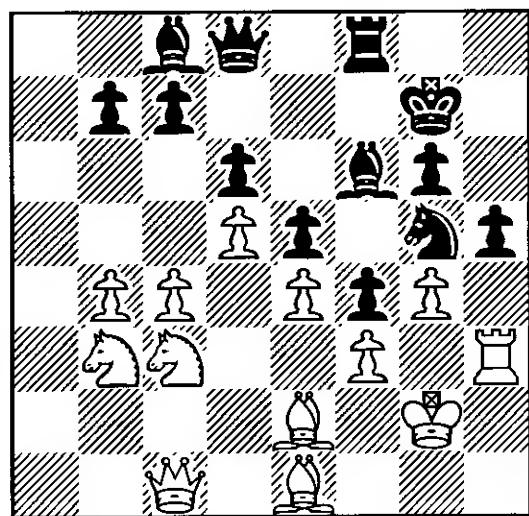
39 ♜xc3 e5+ 40 ♖g5 ♖g7! 41 ♜d6 h6+ 42 ♜xh6 ♜xh6

and Black should win the endgame.

In defence, too, comparison can help us in making decisions. Here Black has just sacrificed a piece and White is in serious trouble.

Karpov-Kasparov

Skellefteå 1989



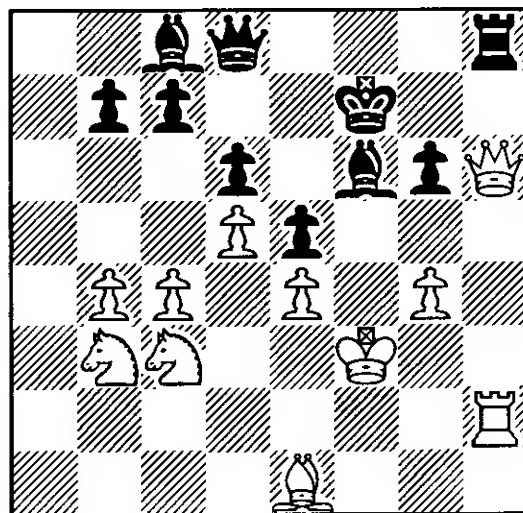
Compare 29 ♜h1 and 29 ♜h2.

No matter which White plays, Black will consider 29...hxg4 30 fxg4 f3+ 31 ♙xf3 ♜xf3 32 ♜h6+ ♖f7 33 ♖xf3 ♜h8. When you see this plan it should be possible to find the difference between the two white rook moves and avoid losing instantly – White's primary ambition here.

If 29 ♜h1? hxg4 30 fxg4 (30 ♙h4 gxf3+ 31 ♙xf3 ♜xf3 32 ♙xf6+ ♜xf6 33 ♖xf3 g5 gives Black a strong attack according to Kasparov) 30...f3+! 31 ♙xf3 ♜xf3 32 ♜h6+ ♖f7 33 ♖xf3 ♜h8! skewering queen and rook and winning the game. Therefore White played:

29 ♜h2! hxg4 30 fxg4 ♜h8

Now the line is less appealing: 30...f3+ 31 ♙xf3 ♜xf3 32 ♜h6+ ♖f7 33 ♖xf3 ♜h8

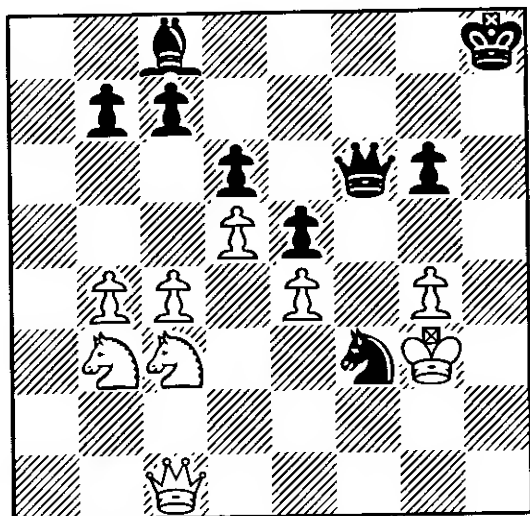


White's extra option.

34 ♜d2! is the subtle difference. With the rook on h2 White can defend it with this retreat. Now he quite possibly stands better, e.g. 34...♙g5 35 ♜g2 ♜f6+ 36 ♖e2 ♜xh2 37 ♜xh2 ♙xg4+ 38 ♖d3 ♜f1+ 39 ♖c2 ♜xe1 40 ♜h7+ and the best Black can hope to achieve is the perpetual check after 40...♙f8 41 ♜xc7 ♜f2+ 42 ♖b1 ♜f1+ 43 ♖b2 ♜f2+, though White can still go for a full point with 44 ♖a3!? ♜a7+ 45 ♜a4! – here we see why the king needed to go to f8 and not f6; an act of comparison again – Black's only move is 45...♙e7! defending the d-pawn, and keeping the position afloat for now.

31 ♙h4 f3+! 32 ♙xf3 ♜xf3 33 ♙xf6+

♙xf6 34 ♖xh8 ♙xh8 35 ♙g3



35...g5?

As Kasparov showed later, 35...♙g8! 36 ♙e3 ♖d4 was the correct winning sequence, when White has:

- a) 37 g5 ♙h8!! and Black wins (Kasparov).
- b) 37 ♖e2 ♖xe2+ 38 ♙xe2 ♙f4+ and Black has a very serious advantage. One idea is 39 ♙h4 ♙h6+! 40 ♙g3 g5! and Black will win the g-pawn and the game.

c) 37 ♖d2!? was suggested by someone at *ChessBase* as OK for White, but this is not the case: 37...♖c2 38 ♙f3 ♙g5! (an improvement from *Fritz*) 39 ♖f1 ♖e1 40 ♙e2 ♙f4+ 41 ♙h3 ♖f3 42 ♙g2 ♖g5+ 43 ♙h4 ♖h7 44 ♖e2 ♙g5+ and Black wins a pawn.

36 ♖e2 ♙g7

Not 36...♙h7?? 37 ♙f1! and White wins.

37 ♙h1

37 ♙f1 is answered by 37...♙xg4! 38 ♙h1 ♖h2! and Black wins (Kasparov).

37...♖d4?

37...♖h4! would still have kept White under pressure, according to Kasparov.

38 ♖bxd4 exd4 39 ♙d1! ♙e5+ 40 ♙f3 ♙f6+ 41 ♙g3 ♙e5+ 42 ♙f3 ♙f6+ ½-½

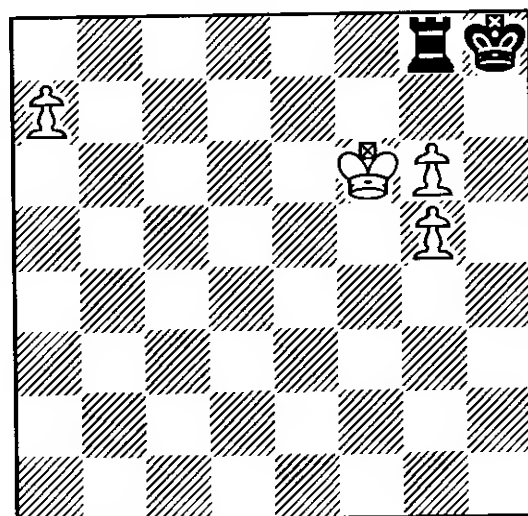
Elimination

All through this book I talk about elimination as an important feature (remember the Korchnoi-Vaganian example on page 28?) and it is indeed a key thinking technique – and one of the most difficult to acquire.

Here is a pure example of a position where it is easy to find the right moves by process of elimination.

Y.Afek

Pfeifer JT 1981



White to draw.

1 g7+

All other legal moves can quickly be disregarded: 1 ♙f7 ♖g7+ or 1 ♙e6 ♙g7 or 1 a8 ♙ ♖xa8 2 g7+ ♙g8! and in all cases Black wins without a fight.

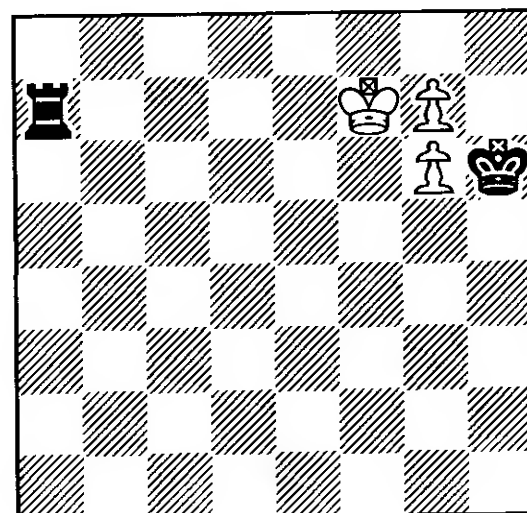
1...♙h7 2 g6+

Same story. If 2 a8 ♙ ♖xa8 3 g6+ ♙g8! and wins. This could be eliminated simply because it gives the opponent more chances.

2...♙h6 3 a8 ♙

Again the only move.

3...♖xa8 4 ♙f7 ♖a7+



You should have made it this far just by eliminating the alternatives.

5 ♖g8!

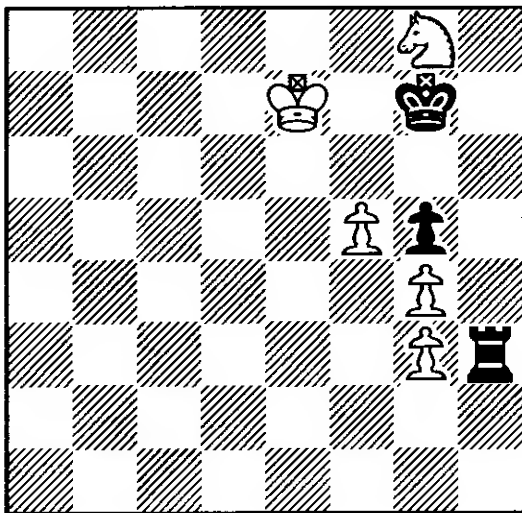
This needs to be seen. But as you could easily calculate this far without any chance to find any alternatives on the way, this is no longer so hard. And here again elimination would be sufficient to solve the problem.

5...♞xg7+ 6 ♖h8 ♞a7 7 g7 ♞xg7 stalemate.

Generally, studies have a tendency to support the use of elimination – especially simpler studies such as the following:

Y.Afek

Schach-Herold 1983



White to play and win.

1 f6+

No other moves make much sense, although 1 ♖f6 should be calculated: 1...♞h2 2 ♖e8+ ♖h6 3 f6 ♞e2+ 4 ♖f8 ♖h7 5 f7 ♞e3 and White cannot make progress.

1...♖g6 2 f7

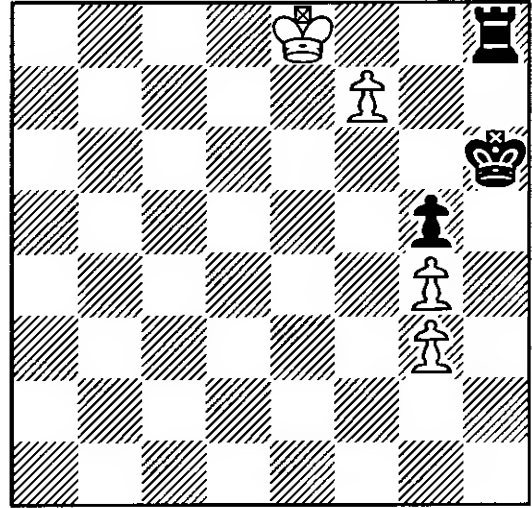
Again White does not have a serious alternative. If 2 ♖e6 ♞h1 3 ♖e7+ ♖h7 4 ♖f5!? (or 4 f7 ♖g7 5 ♖f5+ ♖f8 and White can never hope to win) 4...♖h6! and Black makes a draw. So this line can be eliminated.

2...♞h7 3 ♖h6

The only move to try, as 3 ♖e6 ♞xf7 4 ♖e7+ ♖g7 5 ♖f5+ ♖g6 is a draw.

3...♖xh6 4 ♖e8 ♞h8+

If 4...♖g6 5 f8♖+! and White wins, but not 5 f8♞? ♞h8!! with a draw (6 ♖e7 ♞xf8 7 ♖xf8 ♖f6).



5 f8♞!

Once again a question of elimination. Not 5 f8♞+? ♖g6! and White cannot win.

5...♞h7

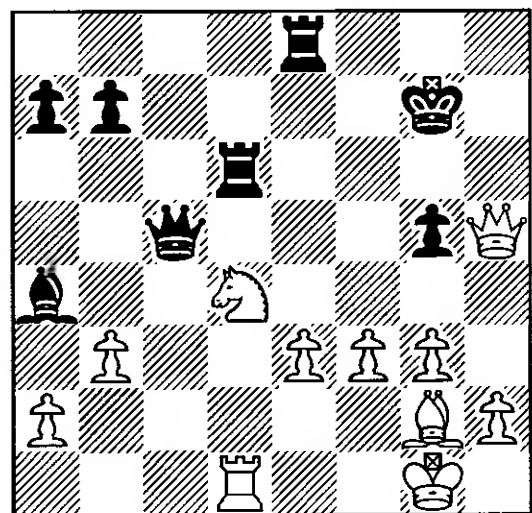
If 5...♞xf8+ 6 ♖xf8 ♖g6 7 ♖e7 ♖g7 8 ♖e6 ♖g6 9 ♖e5 and wins the pawn ending.

6 ♞f6+♖g7 7 ♞f7+ and White wins.

The following example is more complex, and shows how elimination can be a useful tool in a complicated setting, not to solve all problems, but to make calculation easier.

M.Gurevich-Mikhalevski

Antwerp 1999



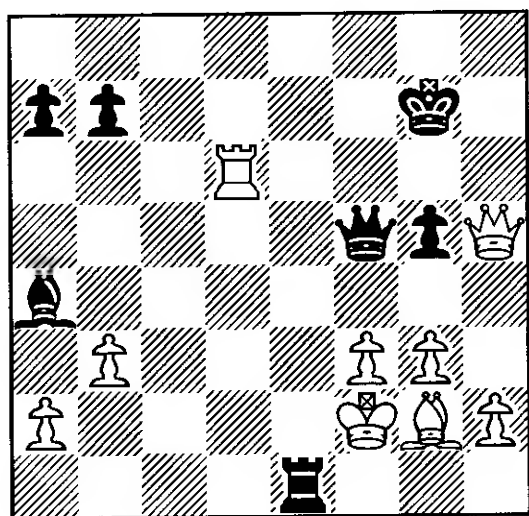
Black to move and defend himself.

Black was in time trouble and lost the game immediately. What he should have done, had he had the time, was to perform an elimination of the different possibilities. Here Black could select from a long line of possibilities:

a) 28...♖h8 29 ♖g4 ♔d7 30 ♖e4 ♜e8 31 ♖xb7 ♜xe3 (31...♔g8 looks better for White, but is not completely clear, so we remember this for later) when White needs to find 32 b4! (and so does Black of course) and now after 32...♖b6 33 ♖xb6 ♜xb6 34 b5 and White has the advantage.

b) 28...♔d7 is met strongly by 29 f4! when Black has only 29...♜xe3 30 ♖xg5+ ♖xg5 31 fxg5 ♔g6 (otherwise ♔f5+) 32 ♔xb7 ♔g4 33 ♜d2 ♔xg5 34 ♔g2 and since it is not possible to find something clear for Black here, probably White simply has three pawns for the exchange and hence excellent chances of winning the game.

c) 28...♜xe3 looks bad because of 29 ♔f5+ ♖xf5 (Black can quickly eliminate 29...♔f6 30 ♖h6+ ♔xf5 31 ♔h3+ ♔e5 32 ♖xg5 mate) 30 ♜xd6 ♜e1+ 31 ♔f2



This does not look too good for Black, but he can come up with 31...♖c2+!! 32 ♔xe1 ♖c1+ 33 ♔f2 (33 ♜d1? ♖e3+ 34 ♔f1 ♔b5+ and mates) 33...♖c5+ and Black has perpetual check. While this is not so easy to determine, it is clear that of the three this is the line Black should go for.

However, there is a fourth line which

could quickly have been eliminated from the list of candidates.

28...♜h6?

This loses in one move:

29 ♖g4

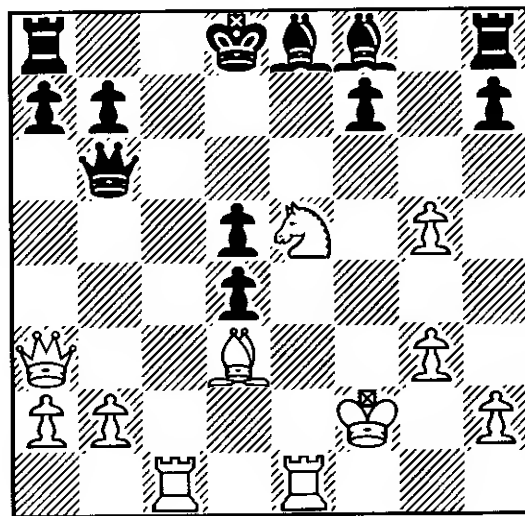
The bishop on a4 is hanging, and White threatens 30 ♔f5+ as well.

29...♔d7?! 30 ♖xd7+ 1-0

I could have found numerous positions where only one move is possible, but as I mention elimination often in this book, I do not think it is necessary. Here I will give just one more example of the technique.

Solak-Kozamernik

Ljubljana 2003



White plays 23 ♖a4. What should Black reply?

23 ♖a4!?

This queen sacrifice obviously cannot be accepted (23...♔xa4 24 ♔xf7+ ♔d7 25 ♔f5+ wins). Instead Black has a large number of moves. Many of them can be rejected immediately because they do not pay attention to White's main threat (supposing Black sees what that is!), but there are some that need to be calculated.

a) 23...♖xb2+? 24 ♜c2! ♔xa4 (24...♖xc2+ 25 ♖xc2!) 25 ♔xf7+ ♔d7 26 ♔f5 mate.

b) 23...♖e6? 24 ♖b3 ♜b8 25 ♔c6+! and White is clearly better.

But Black has two good moves at hand.

Both are very complicated, so it makes sense to try to refute them, when it will quickly become apparent which one offers Black the best chances.

c) 23...♙c5!? 24 ♖xf7+! (this combination is the reason for eliminating this line) 24...♙xf7 25 ♙f5 ♖c6! (Black needs to return the piece; if 25...d3+? 26 ♔g2 ♖xb2+ 27 ♕h1 b5 28 ♖a5+ ♙b6 29 ♖a6 and Black will have to part with his queen to prevent mate on c8) 26 ♖xc6 bxc6 27 ♜xc5 ♙g6 28 g4 ♜f8 29 ♜e5 ♙xf5 30 gxf5 ♔d7 and the endgame is roughly even.

d) 23...♙e7! forces White to retreat with 24 ♖d1, after which the position is at least no worse for Black. It is important that 24 ♖xf7+ ♙xf7 25 ♙f5 no longer works due to 25...♙e8!. This is the major difference to 23...♙c5, and why 23...♙e7 is stronger. We do not need to see anything further to appreciate that 23...♙e7 is clearly the better of the options at hand. However, in the game Black was oblivious to White's main threat.

23...h6?? 24 ♖d7+! 1-0

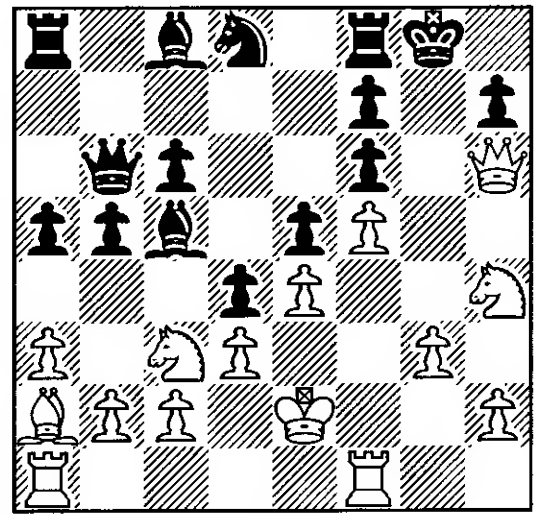
Taking a Fresh Look

Often we set up a list of candidates and try to calculate them, but the candidates we select are not the right ones, sometimes because of our inability to see the right candidates, sometimes because we did not understand the position when we first started looking for candidates. A very clear example of this is given by GM Krasenkov in his splendid article *Wandering in the Jungle* (in Dvoretzky and Yusupov's book *Attack and Defence*).

Alexander-Marshall

Cambridge 1928

Krasenkov rightly explains that you would never think of the main move without first seeing one simple line. Even if it goes so quickly and so naturally for you that you hardly feel it, this is actually what happens when you solve the exercise.



White wins.

The natural first try is 1 ♜f4 exf4 2 gxf4, but Black can defend himself with 2...dxc3. This line can now be improved upon.

One try is 1 ♖d5, but after 1...cxd5 2 ♜f4 exf4 3 gxf4 ♕h8 the black queen suddenly protects f6. So the right move is

1 ♖a4!

and White wins because of

1...bxa4 2 ♜f4 exf4 3 gxf4

and Black has no defence.

3...♙e6 4 ♜g1+ ♙g5 5 ♜xg5+ fxg5 6 f6

That White should also win after the more modest 1 ♖d1 or 1 ♖xf6 is not important.

At times we should be able to go back to the beginning, when we sense that we have not found the best move in the position, and look again. This can happen for many reasons. Perhaps we are not happy with the moves we have analysed, or see a way to improve them immediately. Another idea can be to reverse the move order or to exploit ideas found during the analysis of our first chosen candidates.

Kotov was unfairly quoted as trying to make people think like machines. I, too, have made this mistake. Actually the quote is a half-joke: 'Botvinnik is working hard at trying to make a computer play chess as well as a human being, so let me teach human beings to analyse *with the accuracy of a machine*' (my italics).

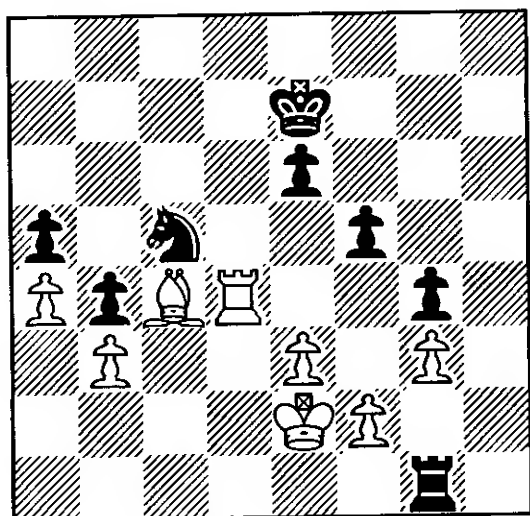
Nevertheless Kotov did have a tendency to think in a very mechanistic fashion. He wanted us to remember a lot of candidate moves in our heads, while we were looking for candidates against other candidates. This sounds confusing, and it should. No one can manage this satisfactorily.

However, Kotov does have a very important point. We do need to organise our thoughts so that we do not repeat the same piece of calculation over and over again. I have seen this as a common trait among weaker players (that is people like myself and below in the world ranking list). We tend to repeat the beginning of a four-move variation again and again before we begin to analyse. There are probably a lot of reasons for this, but it is a really bad habit, and will be dealt with in Chapter 5 on Visualisation and Stepping-Stones, a subject so important that I have singled it out for an independent chapter.

In the following example Black has outplayed his opponent and should be close to a winning endgame, but insufficient analysis prevented him from finding the candidate move which would have won easily. The example also shows a common practice in chess, which I mentioned before and refer to throughout this book: elimination.

Naes-Raetsky

Taastrup 2002



Find Black's best move!

On 38...♖e4!? White has prepared a fortress with 39 ♜xe4 fxe4 40 ♔d2. The idea is that Black cannot easily get the king into play, but if he is able to sacrifice the exchange on c4, then he will have a won pawn ending, because of the extra move ...e6-e5. White would therefore try to get his bishop to d1 in order to secure the draw.

Black could try to calculate the lines to the end to see if it is possible for White to establish a fortress or not – and actually it isn't: 40...♜b1 41 ♔c2 (if 41 ♔e2 ♜c1! wins, because ♜c4-e2 is not possible) 41...♜a1 42 ♔d2 (if 42 ♜e2 ♜a2+ 43 ♔d1 ♜b2 wins) 42...♜a2+ 43 ♔e1 ♜b2 44 ♔f1 ♔f6 (the black king moves to protect all the pawns before the final manoeuvring) 45 ♔e1 ♔f5 46 ♔f1 ♜b1+ 47 ♔g2 (if 47 ♔e2 ♜c1! wins) 47...♜c1 48 ♜e2 ♔g5 and White is now in zugzwang. If he moves the bishop then 49...♜c3 wins more or less on the spot, or if 49 ♔h2 then 49...♜c2 and it is all over.

However, as Raetsky correctly pointed out after the game, this is too much calculation for any human to do in the five minutes he had left on the clock. So to avoid that he made a simple move which he was still very upset with after the game.

38...♜b1?? 39 ♜d1!

Because of this Black's last move could have been eliminated from the calculation.

39...♜b2+ 40 ♜d2 ♜b1 41 ♜d1 ♜b2+ 42 ♜d2 ♜xd2+ 43 ♔xd2 ♔d6 44 ♔e2 ♔e5 45 ♔d2 ♔f6 46 ♔e2 ♔g5 47 ♔d2 ♔e4+ 48 ♔e1 e5 49 ♜d5 ♔c5 50 ♔e2 f4 51 e4 ♔f6 52 ♔d2 ♔e7 53 ♔e2 ♔d6 54 ♔d2 ♔d7 55 ♔d3 ♔f6 56 ♜f7 ♔c5 57 ♜g6 fxf3 58 fxf3 ♔g8 59 ♜f5 ♔f6 60 ♔e3 ♔d6 61 ♔d3 ♔h5 62 ♜xg4 ♔xg3 63 ♜f3 ♔c5 64 ♔e3 ♔f1+ 65 ♔d3 ♔g3 66 ♔e3 ½-½

Raetsky's approach was correct, but wrongly executed. He eliminated 38...♖e4 because of the possibility of the fortress, and he was unsure whether or not he would be able to break it down. Remember it is one

thing to work this out in analysis, it is quite another to do so over the board.

We can argue that he should have eliminated 38...♖b1 quickly because of 39 ♖d1 (which he obviously missed) and instead played 38...♘e4, because then at least there was a chance of winning (at no risk), while after 38...♖b1 the game is quite obviously going to be a draw.

However, as Raetsky himself pointed out after the game, Black had a much stronger move, which can probably only be found after seeing the faults in 38...♖b1 and 38...♘e4; that is 38...♙c1! which will win the game without too much counterplay. Had Raetsky looked for new ideas in the position before making his move, and not after the opponent's reply, he would have found this. On the other hand, he would not have played 38...♖b1 had he not overlooked 39 ♖d1, but instead used more of his precious remaining minutes on finding the best move in the position.

Trying to understand what your opponent is up to

An important idea in chess, which we should never forget to refer to, is the idea of the opponent's intentions. As we are not playing computers, our opponent's will think like we do, and play moves with ideas. In the next example White plays 12 e4, and Black does not seem to understand what White's idea is against the most obvious reply.

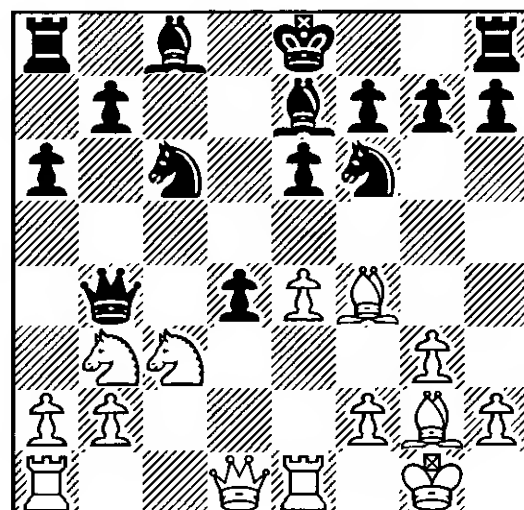
Raetsky-Jakobsen

Taastrup 2002

English Opening

1 d4 ♘f6 2 c4 c5 3 ♘f3 cxd4 4 ♘xd4 a6 5 ♘c3 e6 6 g3 ♙c7 7 ♙g2!? ♙xc4!? 8 ♙f4 ♘c6 9 ♘b3!? ♙b4 10 0-0 d5 11 ♖e1!? ♙e7 12 e4 d4

12...dxe4 13 ♙c7!? e3 14 ♖xe3 0-0 15 h3 ♘a7 16 ♖c1 ♘b5 17 a3 ♘xc3 18 ♖xc3 with an attack in Kasparov-Kramnik, Moscow (blitz) 2001.



Black seems to have prepared for something like:

a) 13 a3 ♙b6 14 ♘a4 ♙a7 15 ♙c7?! (15 ♖c1!? e5 16 ♖xc6 bxc6 17 ♙xe5 with compensation is possible) 15...b5 16 ♘b6 ♙xc7 17 ♘xa8 ♙b7 with a clear edge for Black.

b) 13 e5 dxc3 14 bxc3 ♙b6 15 exf6 with unclear play.

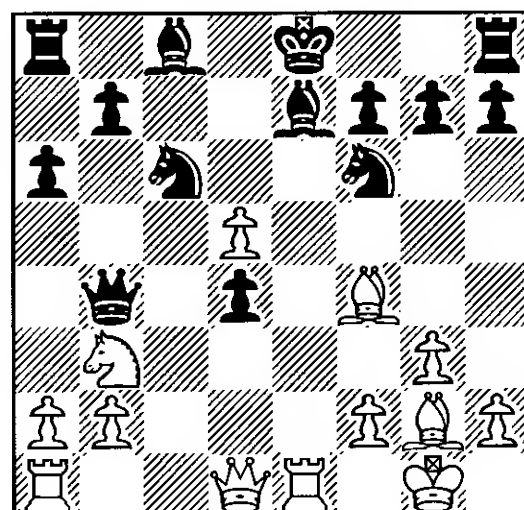
13 ♘d5!

This was White's intention. *Usually when we think our opponents are playing bad moves, but we cannot pick up on their ideas, it is because we ourselves are left in the dark.* Black was surprised by this move, which he himself would have found instantly, had he been given the chance.

13...exd5

If 13...♘xd5 14 exd5 exd5 15 ♙xd5 ♙e6 16 ♙xe6 fxe6 17 ♙h5+ g6 18 ♙g4 and White would be a little better.

14 exd5



14...♘d8?

Black is drifting. This is actually a form of forcing thinking: because Black intuitively wants to hang on to his extra piece he analyses the wrong moves. Instead after 14...♙g4 15 ♖d3 ♘xd5 16 ♙xd5 ♙e6 (if 16...♖d8 17 ♖e4 with an attack) 17 ♙xe6 fxe6 18 ♖xe6 0-0 19 ♖c1 White is only a little bit better.

15 d6

Even the weird 15 ♖xd4 was possible: after 15...0-0 16 d6 ♙xd6 17 ♙xd6 ♖xd4 18 ♘xd4 ♖e8 19 ♙e7 White has a clear advantage.

15...♙e6 16 dxe7 ♖b6

If 16...♖xe7 17 ♘xd4 0-0 18 ♘xe6 ♙xe6 19 ♙d6 wins, or 16...♘xf4 17 gxf4 ♘g8 18 ♘xd4 ♘xe7? 19 ♘c6! and White wins.

17 ♖c1

17 ♙e5!? ♖xe7 18 ♙xd4 also wins.

17...♖xe7 18 ♙c7 ♖a7 19 ♘xd4 ♙f8 20 ♘xe6+ ♙xe6 21 ♖d6+ ♙g8 22 ♖xe6 1-0

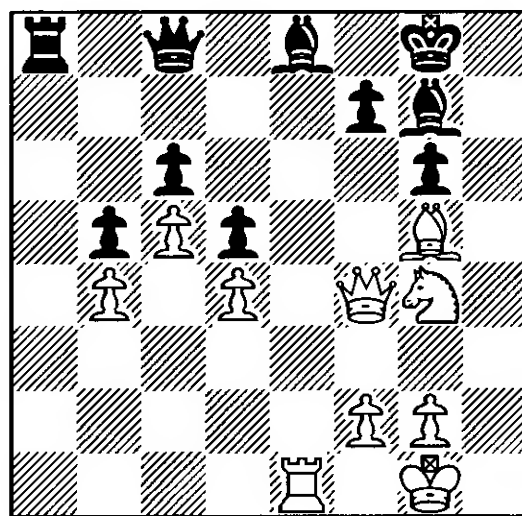
Prophylaxis

An important aspect of understanding what the opponent is up to is figuring out what to do about it, the way to interweave this with our own plans and desires. The works of Mark Dvoretsky (which I continue referring to, even though many will find his books too difficult) are filled with prophylaxis. His training of players like Yusupov – from an ordinary talent to being second only to Kasparov and Karpov – includes heavy emphasis on prophylaxis. Though a difficult word to spell correctly, it is not a concept that difficult is to understand. It simply means paying attention to the opponent's ideas and incorporating them into our decision making. It does not mean that we have to use all our energy preventing the opponent's ideas. Sometimes we do, sometimes we can ignore them; and quite often we can make life more difficult for him, while we continue with our own plans.

In the following example White would like to play 30 ♘f6+ ♙xf6 31 ♙xf6, but Black can still hold his position together with 31...♖f5! 32 ♖h4 ♖h5 and although White is better, a clear-cut win is not easy to demonstrate.

Beliaevsky-Brøndum

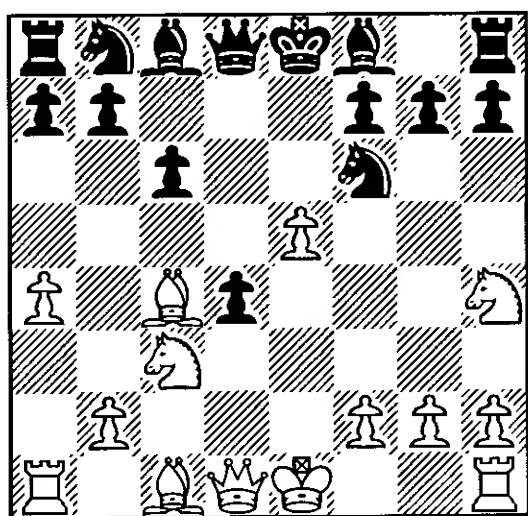
Copenhagen 2002



CHAPTER FIVE

Visualisation and Stepping Stones

It is my experience as a player, and also as a trainer, that the greatest difference between the amateur and the grandmaster, when it comes to calculation, is that the amateur recalculates the same lines over and over again. This is well illustrated in my book *Inside the Chess Mind* (Everyman 2004), which relates how eight players of differing strengths, plus one computer (*Fritz 8*), looked at the same 10 positions. Here is a typical approach to a position by a talented amateur, Ivo Timmermans (rated 2250 at the time).



Ivo, like the rest of the (human) participants in the tests, examined this position talking to a microphone. Here are his thoughts:

‘The last moves must have been ...d4 and

e5, so let me see. White is one pawn down. He has three minor pieces in play. Black has just one, the knight on f6.

What does Black want?

There are some problems in the position. For instance: If the d-file opens, then ♖xf7+ could be a problem at some point. If the knight on f6 moves, then ♘h4 is hanging.

White is close to castling, while Black needs one more move. So it should probably be one of Black’s objectives: to get the king into safety. But let me first check the candidate moves. Obviously both knights are hanging.

1...dxc3 is one move. Another candidate is 1...♙b4. One more is 1...♗a5, but I am not sure if this is any good. 1...♗e7 seems a bit odd after 2 0-0. Then 2...dxc3 3 exf6 leaves White fully developed.

Let us start by looking at 1...dxc3. There might be other candidates like 1...♗b6, but let us first look at the normal moves.

1...dxc3 2 ♖xf7+ ♔xf7 3 ♗xd8 cxb2, threatening ...♙b4+. Okay...

1...dxc3 2 ♖xf7+ ♔e7 3 exf6+ and something nasty, I suppose. Okay.

1...dxc3 2 ♖xf7+ ♔xf7 3 ♗xd8 cxb2 – oh 3...♙b4 straight away. No, I think I will take on b2. Take, take, take. If ...♙b4+ then ♗d2 and ...♙xd2+ and it is ok. This is probably not what you want to do. White will take on

f6 and Black has a horrible pawn structure, so it is probably not good. (It is not clear to me exactly what line Ivo was looking at here. Maybe 2 ♖xd8+ – see the following.)

So White has the advantage in both 2 ♙xf7+ and the 2 ♖xd8+ line. So do you want to play 1...♙b4? This is interesting. At least there is no more threat of ♙xf7+ if I take on c3. So Black cannot escape the pin. Now he can take on f6, he can castle, he can play ♖b3. If 2 ♖b3 then even 2...♘d5 3 ♙xd5 ♙xc3+ and then both d5 and h4 are hanging, and I can castle. So 2 ♖b3 is not so dangerous. What you probably do is 2 0-0 dxc3 3 exf6 0-0 and then you cannot... Well, you can play 4 fxg7, well, it is a bad position.

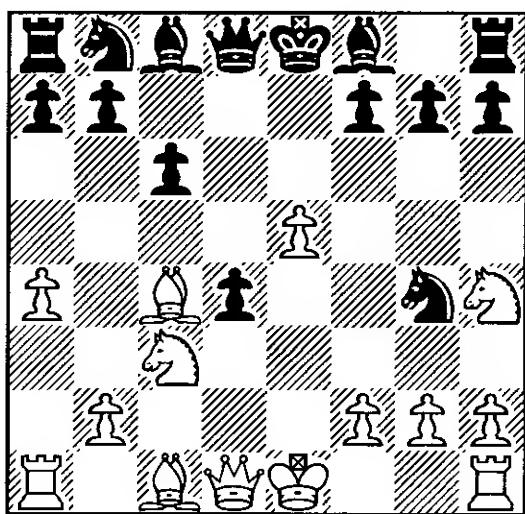
1...♙b4. Okay, let us say that you play 2 0-0 and I play 2...0-0 3 exf6. Okay not very...

1...♙b4 2 0-0 dxc3 threatening to exchange queens. 3 ♖xd8+ ♙xd8 4 exf6. And then I can play... Hmm. I will just go back again.

1...♙b4 2 0-0 dxc3 3 ♖xd8+ ♙xd8 4 exf6.

I might play 4...gxf6 in this line. Or 4...♙e6, but White is still better in this line.

So what I would like to do is to play something more active like 1...♘g4, possibly.



Okay, the knight is hanging on h4. So what do you do after 1...♘g4? You save the knight on h4, not by playing in to f5. You can play 2 ♖f3, threatening... Because then 2...♖xh4 is not possible – 3 ♖xf7+.

2...♖xh4 3 ♖xf7+ ♙d8. Okay, try again.

1...♘g4. Okay, if he plays 2 ♘f3 or something, I will play 2...♙b4 and I castle, without problems. Or maybe I will play 2...♙c5.

2 ♘e4 ♙b4+, and you got a pretty normal position. Black is still a pawn up, so...

1...♘g4. The critical line is maybe 2 ♖f3 ♖xh4 3 ♖xf7+ ♙d8 and maybe 4 h3, or 4 e6 or 4 ♘e4. Black should be able to hold this position. If the knight goes away from c3 you got a check on b4. And ♖f8 is coming up.

So 1...♘g4.

Okay, so 1...dxc3 is not working. 1...♙b4 gives a bad position. 1...♘g4 seems OK, very sharp, but you can probably survive the attack. As White cannot castle directly, you can always sacrifice a piece back with ...♖xf2+ if you do not like it. Black can probably survive this position. Are there other candidates that I have missed.

1...♙e7 is also interesting. Missed that one.

1...♙e7 with the idea 2 exf6 ♙xf6 and both knights are hanging.

If you play 3 ♘f3 then 3...dxc3. If 3 ♖e2 then 3...♖f8 you can always escape via g8 and h7.

1...♙e7 2 ♘e4 ♘xe4. If 2 0-0 then 2...0-0 as well without ruining your pawn chain. Yes, I like that move. Let me just check if it does not fail tactically. 2 exf6 ♙xf6 3 ♘e4 ♙xh4 then 4 ♙f4 is coming, maybe with ♘d6+, but you simply play 4...0-0 and you are out of harm's way. Let me just check.

1...♙e7 2 exf6 ♙xf6. Another idea is to play 3 ♖f3 because f7 is hanging, but you play 3...0-0. Okay, 4 ♘e4 ♙xh4 5 ♖h5. It is possible that it gives some initiative. But I can always play...

Okay – time up.

1...♙e7 is my first choice and my second choice is 1...♘g4.'

The correct first move is 1...♘g4!, but this is not so important for us here and now. What I hope you noticed is the way in which Ivo repeated the same lines again and again, just to consider the position at the end of the

small forced sequence. This is quite common among amateurs and, of course, is a very ineffective way of calculating. Jonathan Tisdall, in his thought-provoking book *Improve your Chess Now!*, introduced a training method that, in some form, should help anyone struggling with exactly this problem. He called this method *stepping-stones*. I will not go deeply into Tisdall's method here – those interested in his ideas should get the book. (It comes highly recommended.) Instead I want to use and abuse the idea in my own way, as I think it makes the most sense: that is to eliminate ineffective calculation, not just as a training technique.

The way I use stepping-stones in my own thinking is to avoid continually returning to the beginning to recheck variations. This does not mean that I never go back to recheck the lines, but there is a time and a place for everything, which is not all the time. Let us take a practical example of how stepping-stones might ideally be used – though this was not at all how it was performed at the time!

Lilja-Aagaard

Copenhagen 1989

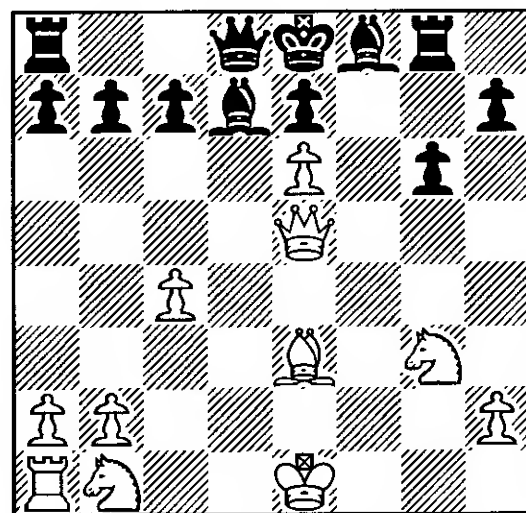
Alekhine's Defence

1 e4 d6 2 e5 d5 3 d4 d6 4 f4 dxe5 5 fxe5 c6 6 b5 d7 7 xc6?! xc6 8 c4?

White's operation looked promising: after the black knight moves White is looking forward to 9 d5. Unfortunately Black had an active defence.

8...dxe3! 9 xe3 xg2 10 e2 xh1 11 d3 c6 12 d5 d7 13 e6 fxe6 14 Wh5+ g6 15 We5 Kg8 16 dxe6

White's compensation for the exchange is coming to an end. I could pretend that both players in this game were playing really deep chess, and that White had overestimated his compensation here. But that was not the case: he simply overlooked 8...dxe3 and tried to make the most of it.



Try to calculate the consequences of 16...g7!?

But let us turn to the theme in focus here: *stepping-stones*. In the following there are many moves that are obviously forced, which can be found quickly by going through the lines and identifying the correct ideas at each stop.

Whether or not you tried to analyse my move (16...g7) above, try now to follow the rest of the game in your head and create clear focus at the stepping-stone positions.

16...g7!?

The easiest way to play for Black was something like 16...c8 17 d3 g7 18 We4 xc3+ 19 bxc3 Wd6 which would have won the game without too much difficulty, but the text move is also very strong. Black gives up a piece and in return wins the b2-pawn and, I thought, the a1-rook.

17 exd7+ Wxd7

Time for the first stepping-stone position. By fixing this position in your mind you will be able to continue your calculation from here in several directions, and return to this position instead of the original position with 16...g7. Sometimes, especially when you first start to use this technique, you will find it necessary to update the stepping-stone position from time to time, because your visualisation of the position is not very clear.

Here you have to look around in order to find a response to Black's sacrifice. Only one move gives White any chance of resistance.

18 ♖e4!

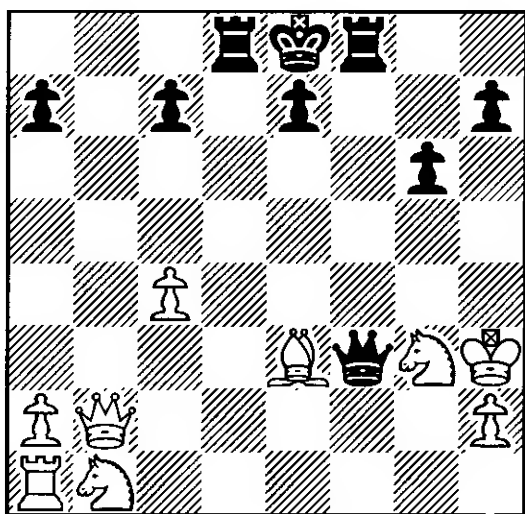
Only a threat to the b7-pawn gives White any hope of not just being two exchanges down. Of course 18 ♖e4 would have to be found, and being a move for the opponent, this is not so easy.

18...♙xb2!

Without this Black's combination starting with 16...♙g7!? does not make any sense. So this is not really a stepping-stone position as such. To look for a strong move on every move does not in itself require a stepping-stone position to be visualised in our heads. But once we begin to calculate variations they are necessary.

19 ♖xb7 ♜d8 20 ♖xb2 ♜d1+ 21 ♔f2 ♜f8+ 22 ♔g2 ♜f3+ 23 ♔h3

Not 23 ♔g1?? ♜d1+ and mates.



Here there would be no need to calculate much further: after 23...♜xe3 Black regains his piece with a very clear advantage. This could be enough to decide upon this line rather than 16...♙c8 – subjectively it depends whether Black prefers to keep the initiative or defend with more material. But objectively, it should be a matter of which lines are most reliable. As 16...♙c8! does not take much calculation, it should therefore be preferred. If it was less clear, then this would be where we would end our calculation of 16...♙g7.

Now, however, we have a new position for calculation, where we would not necessarily go for the simple 23...♜xe3, even

though we had previously ended our calculation with this move. Now it is time for an improvement to the variation.

23...♜f5!

The immediate threat of ...♜h5 mate forces White to look for a defence. Again this position could be a useful stepping-stone. White only has one chance.

24 ♖h8+ ♔d7 25 ♖d4+ ♔c8 26 ♖g4 ♜xe3

Black now regains one of his sacrificed pieces and White cannot defend. This would be the moment for another stepping-stone in our calculation at move 23. White now has several possibilities and it would be necessary to calculate them all in order to choose between 23...♜xe3 or 23...♜f5. Here we shall only concentrate on the game continuation.

27 a4

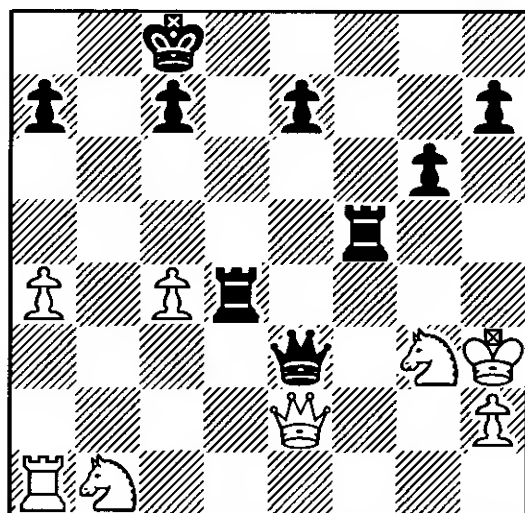
White tries to get his rook into play. The alternatives also needed to be checked to make sure they did not save White:

a) 27 ♖e2 ♜e5! 28 ♖xe3 ♜xe3 and White cannot develop his queenside without losing a piece, after which Black will win easily with his material advantage.

b) 27 ♖e4 ♜e5! 28 ♖a8+ ♔d7 29 ♖h1 ♜f8 and Black has a winning attack.

27...♜d4 28 ♖e2

Not 28 ♜a3? ♖h6+.



Black concludes the game.

28...♜h4+!!

A nice sacrifice which drags the white king further into the open.

29 ♖xh4

If 29 ♖g2 ♜f2+ 30 ♜xf2 ♜xh2+ 31 ♖xh2 ♜xf2+ 32 ♖h3 ♜b2 and Black wins.

29...♜h6+ 30 ♖h5 ♜xh5+ 31 ♖g4 ♜h4+ 32 ♖g3 ♜g5+ 33 ♖f2 ♜xh2+ 34 ♖e1 ♜xe2+

More precise was 34...♜c1+ 35 ♜d1 ♜e3+ with mate next move. But Black won easily anyway.

35 ♖xe2 ♜e5+

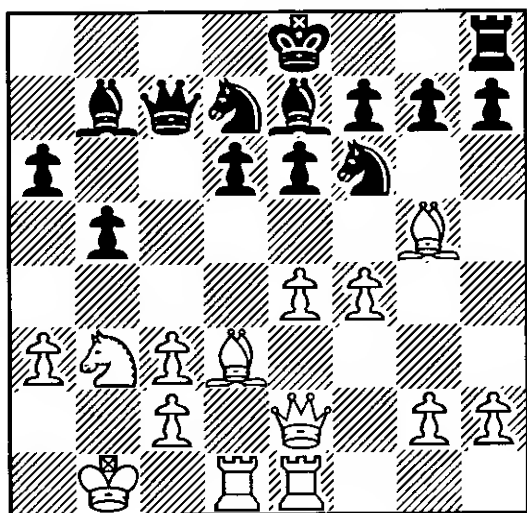
and White soon resigned.

Stepping-stones have a lot to do with focusing and visualisation. You could argue that you need to improve your visualisation ability before you can use stepping-stones. But actually I see it as a chicken and egg question: who cares which was first when you can get fried chicken?

The following example shows Black unable to visualise the position correctly, and therefore blunders a wonderful position away into an unclear middlegame.

Hebden-Aagaard

Port Erin 2003



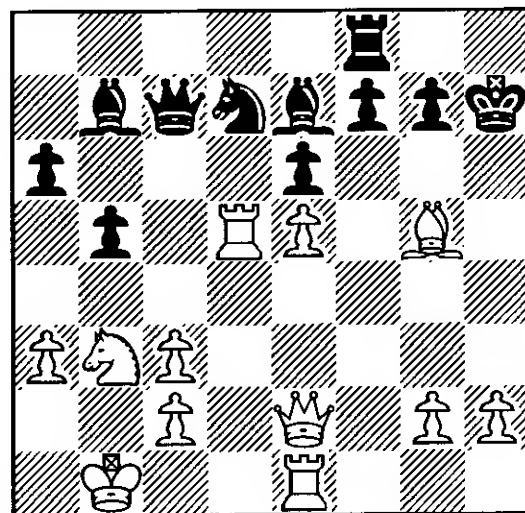
Black to choose: 16...♖b6 or 16...0-0?

16...0-0?

This was simply a matter of being unable to maintain the stepping-stone position in my head.

16...♖b6 was much stronger and would have prevented White's subsequent counterplay. After something like 17 ♖a5 ♖a8 18 ♜d2 0-0 19 e5 dxe5 20 fxe5 ♖fd5 21 ♖xe7 ♜xe7 Black is close to winning. Now White can escape the worst by means of a small combination involving an exchange sacrifice.

17 e5! dxe5 18 fxe5 ♖d5 19 ♖xh7+! ♖xh7 20 ♜xd5



I had seen this position but failed to evaluate it correctly. Had I been in reasonable form and able to fix the position in my head while searching for candidates here, I would have seen that my intended 20...♖xg5 is useless because of 21 ♜d3+ and White wins. So I had to accept a position with opposite-coloured bishops and roughly even chances, where my grandmaster opponent outplayed me in mutual time trouble.

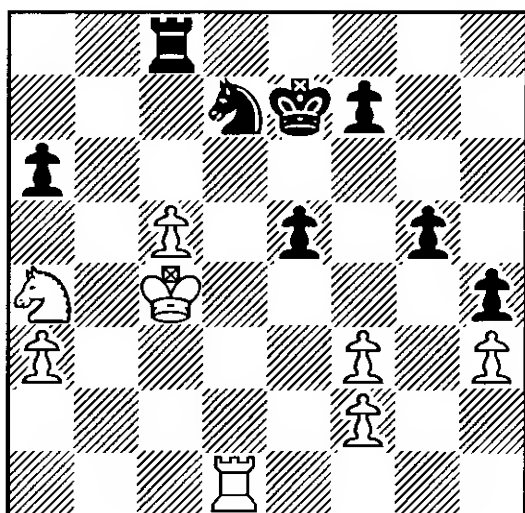
20...♖xd5 21 ♖xe7 ♜e8 22 ♖b4 ♖g8 23 ♜e3 f6 24 ♖d6 ♜c4 25 exf6 ♖xf6 26 h3 a5 27 g4 ♜c8 28 ♖e5 ♖d7 29 ♖d4 ♜c7 30 ♜g5 e5 31 ♖c1 exd4 32 ♜xd5+ ♖f8 33 ♜f5+ ♖f6 34 g5 d3 35 gxf6 1-0

An important part of using stepping-stones is to look for candidates at the end of a variation in the same way as at the beginning. This way you will realise that the variation in no way stops here, but goes on for a few moves further.

In the following example White calculated the first few moves correctly, but then somehow misevaluated the final position. Since

White is a strong grandmaster it is hard to understand how this could happen, but usually it is because of a too slight evaluation of the end position, based as much on assumption as on anything else.

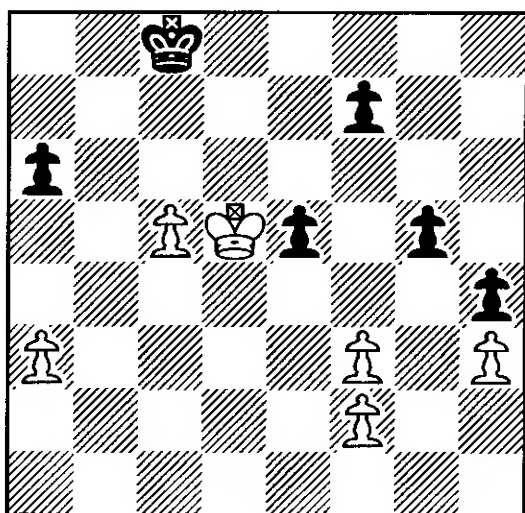
Brynell-Hellborg Helsingborg 2002



Can White win?

White has a passed c-pawn, but Black defends the squares around it pretty well and White has no easy way to make good use of his knight on a4. It is therefore tempting to force exchanges of all the pieces and go into a pawn ending. However, this endgame needs to be calculated accurately.

49 ♖xd7+? ♔xd7 50 ♘b6+ ♔c7 51 ♘xc8 ♔xc8 52 ♔d5



Black to strike!

All of this was indeed forced. White's move was the only one that made sense and now it looks as if he is just winning.

By taking this position as a stepping-stone, White would have been able to see that Black has one, and only one idea that gives him counterplay. Looking at the diagram you should probably be able to see the breakthrough pretty quickly. So if you imagine that with stepping-stones you would be able to look for possibilities as easily as if you were looking at a diagram, you'll have a good idea about how useful stepping-stones are.

52...f5!

The pawn ending is completely lost. There is no way White can prevent the h-pawn from queening.

53 f4!?

A nice try. After 53 ♔xe5 g4 54 fxg4 fxg4 55 ♔f4 gxh3 56 ♔f3 ♔c7 White will soon run out of moves.

53...exf4 54 ♔e5 g4 55 hxg4 h3! 0-1

The pawn cannot be stopped. White was pinning his last hopes on 55...fxg4 56 ♔xf4 h3 57 ♔g3 ♔c7 58 f3 and draws.

So in fact White could not improve his position and should have been content with a draw. Using stepping-stones was one way of finding that out.

Calculating long lines

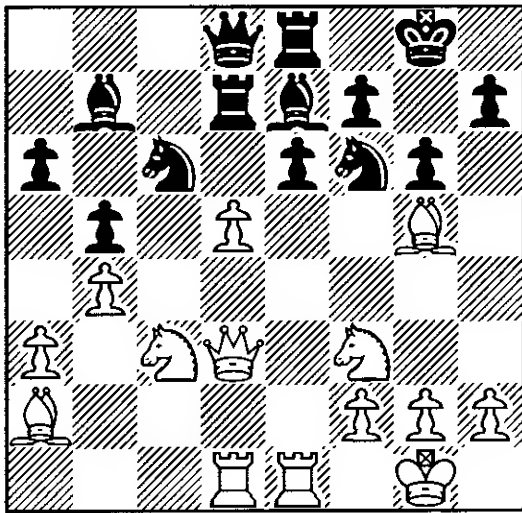
When we calculate long lines, as we sometimes have to do, there are a few techniques that can help us improve our accuracy. One technique already mentioned is stepping-stones. Another is the important notion that we need to look for candidates at the *end* of forced lines, just as we do at the beginning. A third is that we need to calculate forced lines absolutely to the end. Positions in which a lot of things are happening tactically cannot be evaluated, they need to be calculated. The example below discusses, from Black's point of view, what to calculate after White decides to put his position to the test.

Riazantsev-Arbakov

Voronezh 2003

Queen's Gambit Accepted

1 d4 d5 2 c4 dxc4 3 f3 f6 4 e3 e6 5
xc4 c5 6 0-0 a6 7 d3 c6 8 c3
cxd4 9 exd4 e7 10 g5 0-0 11 c1 b6
12 e1 b7 13 b1 c8 14 a3 e8 15
d3 g6 16 h6 c7 17 a2 d7 18
cd1 b5 19 b4 f8 20 g5 e7 21
d5!?



A natural reaction. However, even in his annotations in *Informator*, Riazantsev does not give an accurate picture of the position. 21 e3!, with the plan of 22 f4, was better, as it is not easy to see how Black can improve his position.

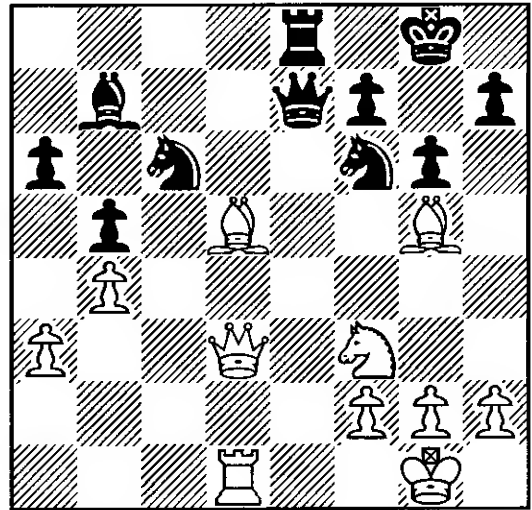
After the text Black should start by selecting his candidates. There are two that immediately spring to mind: the two different captures on d5, with the knight and with the pawn. But we should also look outside the box for extra opportunities, to see the position as it really is and not through the mirror of our preconceptions. Arbakov failed to do so during the game, and Riazantsev does not seem to have paid attention to these extra possibilities in his annotations.

21...xd5?!

It is easy to understand why Riazantsev believes this to be the right move. But now, let us look at the position from the eyes of a Black defender. There are a few lines that

needs to be calculated:

a) 21...exd5? can be quickly disregarded as White has a standard reaction, well known to both players: 22 ex7! xe7 23 dxd5 cxd5 24 dxd5. This is forced, and we have the first stepping-stone. It is possible to evaluate this position as dangerous for Black and simply look for alternatives and save time. But we could also investigate this a bit further...



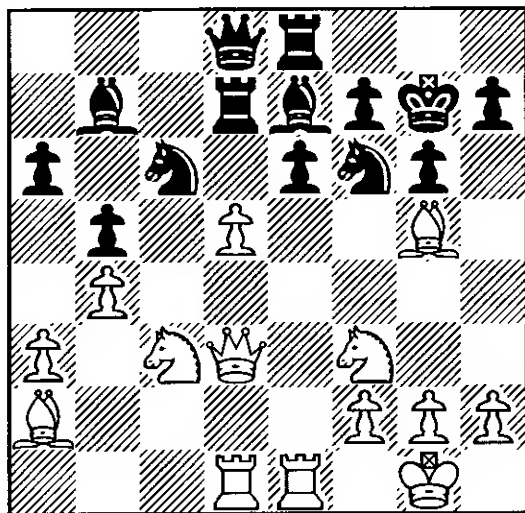
Analysis of unforcing options (such as 24...d8 25 b1 a5 26 e1 d6 27 a1 and White is much better) quickly convinces us that Black needs to look at something more direct. However, 24...e5 is answered by 25 xe5 dxd5 26 e1 and it is easy to see that White has the initiative. Riazantsev gives the following line to show the dangers of the position for Black: 26...b7 27 f1 g7 28 e3 e6 29 a1 f5 30 h6+! xh6 (if 30...g8 31 h3! with the irresistible threat of 32 g4!) 31 xf7+ g7 32 d6 and White wins. We would not need to see all this during the game to get the impression that Black is under pressure. Rather it is something we should analyse afterwards to improve our feeling for the position and to learn from our mistakes. (Then we would discover that, although Black is uncomfortable, 26...b7 is by no means forced and Black does not have to sink like a stone.)

With 21...exd5 out of the picture, it could be easy to analyse 21...xd5 a little and play it as soon as we see that it is at least no worse

(elimination). If no other options existed, then yes. But we should take a fresh look at the position and decide if we are really forced to enter these lines initiated by White. For there is a pin down the d-file to the white queen, and although this should not be overestimated, it is still an important feature of the position.

In his annotations Riazantsev did not mention a move I consider to be a serious alternative. Black could have avoided a lot of problems if he had stepped out of the threat of dxe6 and exf7+ with:

b) 21...♔g7! when White has no easy way to continue the attack.



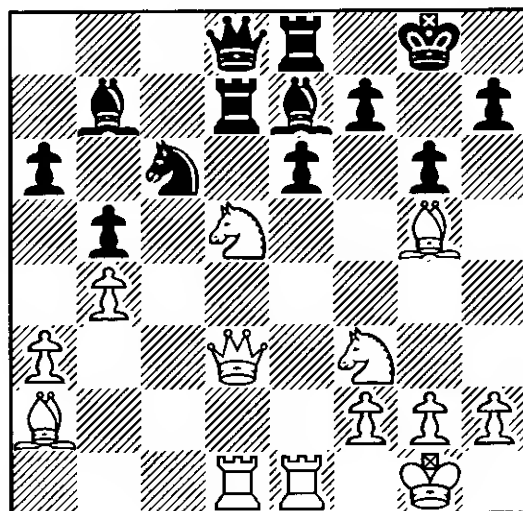
b1) 22 ♖xf6+ ♖xf6 23 ♕e4 does not seem to give White anything. After 23...exd5 24 ♖c5 ♖xe1+ 25 ♖xe1 ♖c7 26 ♖xb7 ♖xb7 Black is equal, as 27 ♖xd5?? ♖d7! would lose at least a pawn.

b2) 22 ♖e3 (22 ♖d2 exd5 will transpose in most lines) 22...exd5! (but not 22...♖xd5? 23 ♖xd5 exd5 24 ♖h6+ ♔g8 25 ♖g5! when the threat of 26 ♖xf7! forces Black to give up the exchange with 25...♖f8) 23 ♖xf6+ ♖xf6 24 ♖xe8 ♖xc3 25 ♖e2 d4 and here Black has fine play for the exchange.

To see all of this we would first have to think up 21...♔g7 and see that Black indeed can improve his position in a lot of lines. This is by no means easy, but as we shall see later, this was forced sooner or later in order to save the game.

However, the game is still not completely lost for Black.

22 ♖xd5



22...♖xg5

22...exd5 23 ♖xd5 ♖xg5 24 ♖xe8+ ♖xe8 25 ♖xg5 ♖e5 26 ♖h3 transposes to the game. On the funny 23...♖b8 all we need to see is 24 ♖xf7+! ♖xf7 25 ♖e5+ and it is hard to believe that Black will survive. We just have to look a little at Black's options, before quickly realising that this is much more difficult than the game continuation. For example: 25...♔g8 26 ♖xd7 ♖xg5 27 ♖b3+ ♔g7 28 ♖c3+ and White wins in a large number of ways, such as 28...♔h6 29 ♖e5! ♖c8 30 ♖f7+ ♔h5 31 ♖g7! with a winning attack.

23 ♖xg5

23 ♖f6+?! ♖xf6 24 ♖xd7 ♖b8! would give Black decent compensation for the exchange. We needed to see this when we chose the 22...♖xg5 move order.

23...exd5

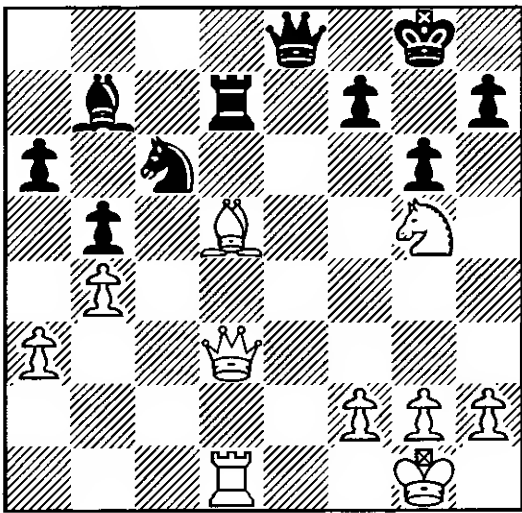
Another easy decision. We should of course look for alternatives, but it is easy to eliminate them:

a) 23...♖xg5 24 ♖f6+ and Black does not have enough for the exchange.

b) 23...♖b8!? (again we quickly find that Black should avoid this) 24 ♖xf7! ♖xf7 (if 24...♖xf7 25 ♖f4! and White has a great structural advantage) 25 ♖f3+ ♔g8 (or 25...♔g7 26 ♖c3+ ♔f7 27 ♖e3 and White is clearly better) 26 ♖f6+ ♔h8, and now we

need only see simple lines like 27 ♖xd7!? ♜xd7 (27...♙xf3 28 ♖xh7 mate) 28 ♚xb7 ♜xf6 29 ♚f3 to convince ourselves that this is bad for Black (though I quite like Riazantsev's 27 ♙d5! with a clear advantage, based on 27...♙xd5? 28 ♚c3 and White wins).

24 ♖xe8+ ♚xe8 25 ♙xd5



What can Black do here to defend?

We have reached another critical position. Black needs to list his candidates and think outside the box as usual; but first, why not just analyse the most obvious move in the position?

25...♜e5

This forces White's reply.

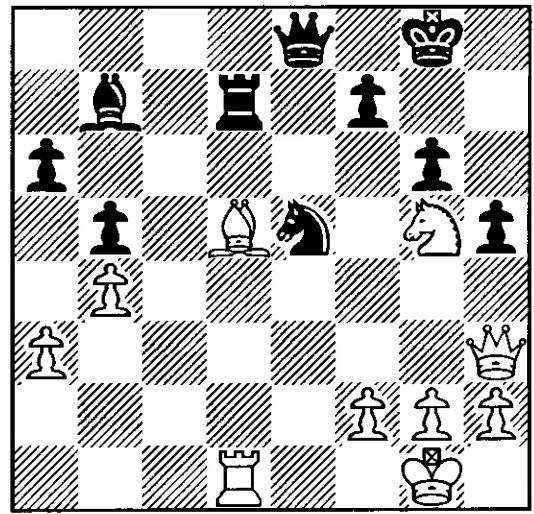
26 ♚h3

26 ♚b3? ♙xd5 27 ♖xd5 ♜c4! 28 ♖d1 ♚e2 29 ♖f1 ♚xf1+ and Black wins should not be difficult to calculate. But actually, after 27...♜c4! Black does not need to see any further: it is obvious that he will not be worse off.

26...h5

Forced. If 26...♖xd5 27 ♚xh7+ ♙f8 28 ♖xd5 ♜f3+ 29 ♜xf3 ♙xd5 30 ♚h8+ ♙e7 31 ♚e5+ and White is a clear pawn up and on his way to win the endgame.

But before heading into this variation it was important that we stopped and really looked for the opponent's opportunities here. If we had done that we would have seen that White has a strong continuation.



27 ♚xd7!!

Not really a queen sacrifice, but rather flashy all the same.

27...♚xd7 28 ♙xf7+ ♚xf7 29 ♜xf7 ♜xf7

If 29...♙xf7? 30 f4 and White wins.

30 ♖d7 ♙c8 31 ♖c7 ♙f5 32 ♖c6

White was able to win this endgame comfortably. This could and should have been calculated accurately by Black. Unfortunately Arbakov is not really interested in calculation. His main strength is natural talent and, therefore, rapid chess, in which he does not need to display any discipline. In normal chess he has been able to reach, on talent alone, the level of a normal grandmaster, but not beyond that. Here talent was not enough and his opponent simply out-calculated him.

32...♙g7 33 ♖xa6 ♙c2 34 f4 ♜h6 35 ♙f2 ♜g4+ 36 ♙g3 ♜e3 37 ♖b6 ♙d3 38 ♙f2 ♜d5 39 ♖d6 ♙c4 40 ♙f3 ♜c3 41 ♙e3 ♜b1 42 ♖a6 ♙b3 43 ♙d3 ♙f7 44 ♙d4 ♙a4 45 ♙e5 ♙g7 46 ♖a7+ ♜h6 47 ♙f6 ♜xa3 48 ♖a8 ♙h7 49 ♙g5 ♜c2 50 ♖a7+ ♙g8 51 ♙xg6 ♙f8 52 f5 ♙b3 53 ♖a8+ ♙e7 54 f6+ ♙d7 55 ♖b8 ♙c6 56 ♖c8+ ♙d6 57 ♖c3 1-0

So 25...♜e5?! was a mistake. Probably this is the first thing we would see in our calculation, even before we listed all the candidates, and this should not have taken more than a few minutes. But as explained above, it is not

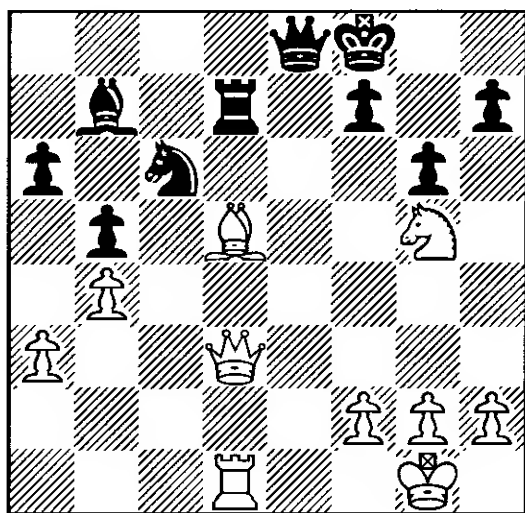
likely that Arbakov used even this amount of time on his move.

At some point Black would have to list the candidates.

a) 25...♖xb4? does not work because of 26 ♖h3 h5 27 ♙xf7+! and White wins, or if 26...♙g7 27 ♖xh7+ ♙f6 28 ♖h6 and 29 ♖h7+.

b) 25...♙g7? is another idea, the point of which is to avoid ♙xf7+ by stepping onto a dark square. However, it should be easy to spot a strong continuation for White: 26 ♖c3+ ♖e5 (if 26...♖e5 27 ♖xf7! wins a pawn) 27 ♖h3! ♖b8! (often we would just cave in here and not even see this extra resource; but this is a good day, so we see 27...♖b8! and, hopefully, the opponent's chances too) 28 ♖xh7+ ♙f8 29 ♖h6+! ♖g7 (forced, as after 29...♙g8 30 ♙xf7+ ♖xf7 31 ♖d8+ leads to mate, or if 29...♙e7 30 ♖f3! ♖xd5 31 ♖e1 wins) 30 ♖xg7+ ♙xg7 31 ♙b3 and White is a pawn up.

So 25...♙g7 is very tempting, but simple calculation will quickly determine that this move is no good. However, it would probably have helped us to get a new idea, a move far out of the box which would have saved the game: 25...♙f8!



This is in fact the only move. Black avoids the two uncomfortable checks (at f7 or c3) and all the forcing lines which lead to trouble. Of course White can take the h-pawn, but this is not as tempting as it seems. After

26 ♖xh7+ ♙g7 27 ♖g5 ♖e5 Black has basically played both 25...♖e5 and 25...♙g7 (at the cost of a meaningless pawn) and White is in trouble, e.g. 28 ♖e4 (or 28 ♖h3 ♙xd5 29 ♖xh7+ ♙f6 30 ♖h6 ♙e7 31 ♖h4 f6) 28...f6 29 f4 fxe5 30 fxe5 ♖d8 wins a piece. Therefore White might play something careful like 26 ♖b1 which can be answered with 26...♖e7 and Black should be OK.

Actually the most dangerous move is 26 f4! with strong threats. In analysis it might eventually work out that Black's position cannot be saved after all; for instance there might be a win in the endgame after 26...♖d8 27 ♖xh7+ ♙g7 28 ♖g5 ♖xb4 29 ♖c3+ ♖f6 30 ♖xf6+ ♙xf6 31 ♖e4+ ♙e7 32 axb4 ♖xd5 33 ♖xd5 ♙xd5 34 ♖c5. But at least it is difficult for White to get the job done. As it was Black lost without much of a fight really.

This is also an example of unforcing thinking. The forced lines were in White's favour in this game, and Black just accepted them. It would have made more sense to think outside the box and step away from White's intentions.

Organising the Calculation of long lines

One of the most difficult questions in the theory of calculation is what to calculate first. If you go to Mark Dvoretsky he does not really offer any answers which are valid for more than the position at hand – although he does say that if you have a very tempting option, it makes sense to examine it before looking at alternatives, if for no better reason than to satisfy your curiosity. But gone is the advice of Kotov about listing the candidate moves and analysing them all one by one, while in the process finding candidate moves against each of our candidate moves. Of course this kind of mechanical thinking is awful and not suitable for humans, though it can be useful in analysis.

Personally I do not think that any real advice can be given. An experienced player will

know what things are natural to calculate and what make little sense. Often we will analyse the most relevant first and the less relevant later. What we should remember is not to analyse for the sake of it, but only analyse what is relevant in order to make a decision.

In the following game a lot of interesting positions arose, in which decisions had to be made involving all kinds of calculation technique. We, the players, did not do too well, but possibly there are lessons to be learned from the game.

Aagaard-I.Andersen

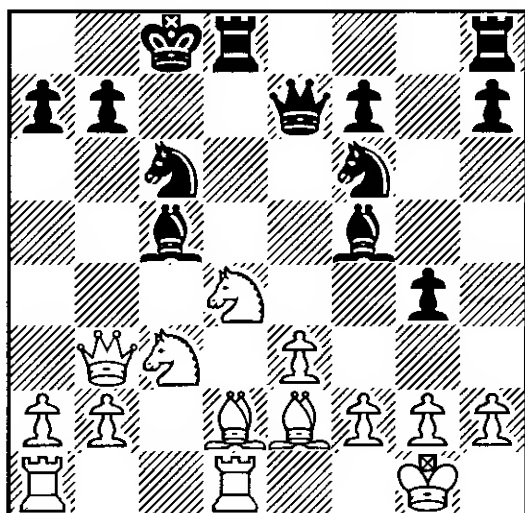
Copenhagen 1991

Queen's Gambit Declined

1 d4 d5 2 c4 e6 3 ♘c3 c5 4 cxd5 cxd4?!

This gambit is not good, even though it can at times lead to interesting games.

5 ♖a4+ ♙d7 6 ♖xd4 exd5 7 ♖xd5 ♘c6 8 e3 ♘f6 9 ♖b3 ♙c5 10 ♘f3 ♖e7 11 ♙e2 0-0-0 12 ♙d2 ♙f5 13 0-0 g5 14 ♖fd1 g4 15 ♘d4!



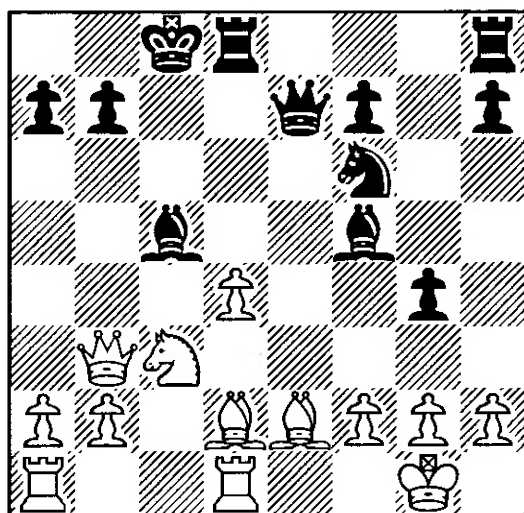
This is what White was aiming at. By returning the pawn he opens up the black king's position and should be able to prove an advantage. Now it is time to list the candidates. As 15...♙d7 does not make much sense, there are only the three ways of capturing the knight to consider. All need to be calculated accurately once this has been established.

The most important thing to do in such a

critical moment is to organise the moves that need to be calculated in the right order. It is logical to take the most obvious move first, since if this works, it might be possible to eliminate the alternatives quickly, without calculating them too deeply.

a) 15...♙xd4? 16 exd4 ♘xd4 is probably the most obvious line to look at first. But this can be eliminated from the candidates rather quickly, as after 17 ♖c4+ ♖c7 (or 17...♘c6 18 ♘b5! and Black lacks a good response) 18 ♖xc7+ ♙xc7 19 ♙f4+ ♙c8 20 ♖xd4! ♖xd4 21 ♙e5 and White wins material. This line is not too difficult, and when calculated carefully enough, it should be apparent after two minutes that there is nothing to search for here. Because it is such an obvious option, it could be tempting to return to it again and again. However, while it might make sense to return to it once later, it is now time to move on and calculate the other two options. Depending on your style, personality and taste, you will choose either the exchange sacrifice or the more passive line first.

b) 15...♘xd4 16 exd4 and then:



b1) 16...♙xd4? fails to a brilliant combination: 17 ♘b5!! (not 17 ♖c4+? ♖c5! and Black survives) 17...♖xe2 (if 17...♙c5 18 ♖c4 wins) 18 ♘xd4 ♖xd4 19 ♖c3+ ♖c4 20 ♖dc1!! and White wins, as after 20...♖xc3 21 ♙xc3! the skewer wins at least a rook.

b2) 16...♖xd4! 17 ♖ac1 ♙b8 (if 17...♖hd8? 18 ♙e3 ♖xd1+ 19 ♘xd1! wins) 18 ♘b5

♖xd2 19 ♔g3+ ♕d6 20 ♘xd6 ♖xd1+ 21 ♖xd1 ♔a8 and Black at least does not lose instantly. By calculating all three candidates in order, you would probably come to a conclusion – and that should be that this is the best one possible. In the game Black went for the exchange sacrifice.

15...♖xd4?! 16 exd4 ♘xd4 17 ♖c4 b5!?

This was Black's idea behind the sacrifice. White now has no choice.

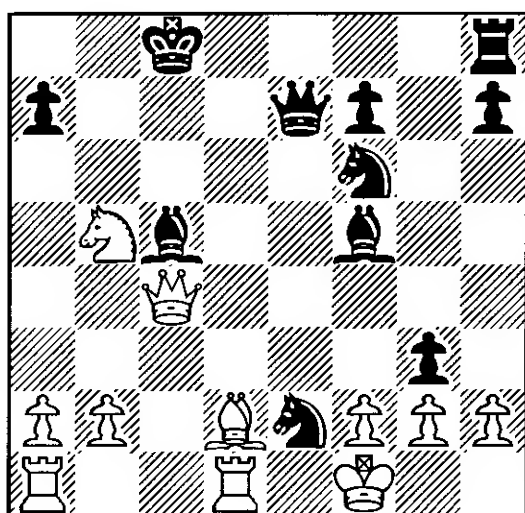
18 ♘xb5 ♘xe2+

18...♕e6 19 ♖d3 ♕f5 does not force a draw, though it might not be objectively weaker than the text move. White has either to sacrifice his queen with 20 ♖xd4 (which is quite strong), or find the combination 20 ♘xa7+ ♖xa7 21 ♖a6+ ♖xa6 22 ♕xa6+ ♔b8 23 ♕f4+ ♔a7 24 ♕e5 and wins.

19 ♔f1?

Always, when moves seem to be too obvious, we should pause. Here White throws a winning position away without even pausing for a second. Instead after 19 ♔h1! ♔b8 20 ♖e1 Black is completely lost, whereas now he has strong counterplay. Equally, this is the variation Black would have needed to see in order to discard 15...♖xd4.

19...g3!



Without this move Black has nothing, but now it becomes apparent that the white king is far from comfortable on f1. So what now?

20 ♕f4

It appears that both 20 ♕f4 and 20 hxg3

should objectively lead to a draw, but in the game Black needs to prove it, which makes White's choice clearly preferable.

Instead 20 hxg3 is strongly met by 20...♘g4! 21 ♖xe2 ♖xe2+ 22 ♔xe2 ♖e8+ and then:

a) 23 ♔f1? ♕d3+ 24 ♔g1 ♕xf2+ 25 ♔h1 ♖e5 and Black wins.

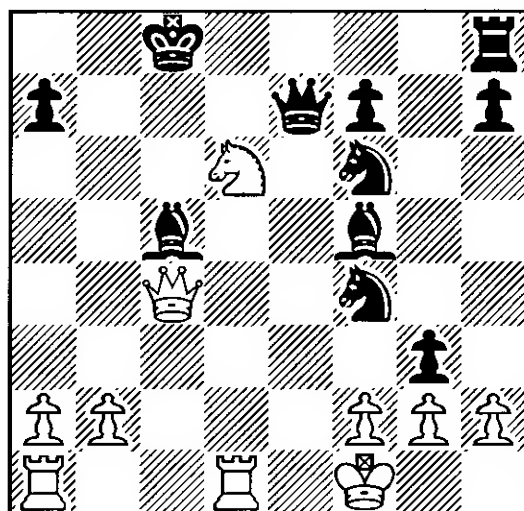
b) 23 ♔f3 ♘e5+ 24 ♔f4 ♕d7! 25 a4 a6 26 ♘c3 ♘g6+ 27 ♔g5 ♖e5+ 28 ♔f6 ♕d4 29 ♔g7 ♖h5+ 30 ♔g8 ♘e7+ 31 ♔f8 (not 31 ♔xf7?? ♖f5+ 32 ♔xe7 ♕c5 mate) 31...♘g6+ with perpetual check.

c) 23 ♕e3!? ♘xe3 24 fxe3 ♖xe3+ 25 ♔d2 ♖xg3 gives Black excellent play for the exchange. There is no reason why he should lose the coming endgame. Still, this is the only place White can seek for an advantage.

Actually I rejected 20 hxg3 because of 20...♘xg3+ 21 fxg3 ♘g4 which I believed was winning for Black, but 22 ♘d4!! (found by Thomas Ernst) wins easily for White. This kind of defensive tactic later came in handy, as can be seen below in my game against Hofmann.

20...♘xf4 21 ♘d6+

21 ♖xf4 ♕g4 22 f3 ♖e8! gives Black the initiative. It does not take much calculation to dislike White's position. One line goes 23 ♖e1 gxh2 24 ♖xh2 ♕e6 25 ♖xe6 fxe6 26 ♖c1 ♔b7 27 b4 ♘g4! 28 ♖g3 ♘e3+ 29 ♔e2 ♘f5 30 ♖e5 ♕d6 31 ♘xd6+ ♘xd6 and Black should win eventually.



21...♔b8?

Black misses his chance by thinking inside the box. It appears that no other moves exist, but as so often before it is the seemingly simple moves that are the mistakes. During the game I saw no way to win against 21...♚xd6!! 22 ♖xd6 gxf2 23 ♚xc5+ ♔b8 and, indeed, perpetual check is all there is.

22 ♖xf5!

22 ♚xf4? looks dangerous, but Black has 22...♙g4! 23 f3 (or if 23 ♖f5+ ♚c7! and all the white pieces are hanging – remember the threat of ...gxf2) 23...♘h5!! 24 ♚xg4 ♚e3 25 ♘e4 ♖f4 and Black wins.

22...♚e4 23 ♚xe4 ♖xe4 24 hxg3

Now White can relax. The resulting end-game is better for him.

24...♖e6 25 f3 ♖f6 26 b4 ♙b6 27 ♖ac1 h5 28 a4 a6 29 a5

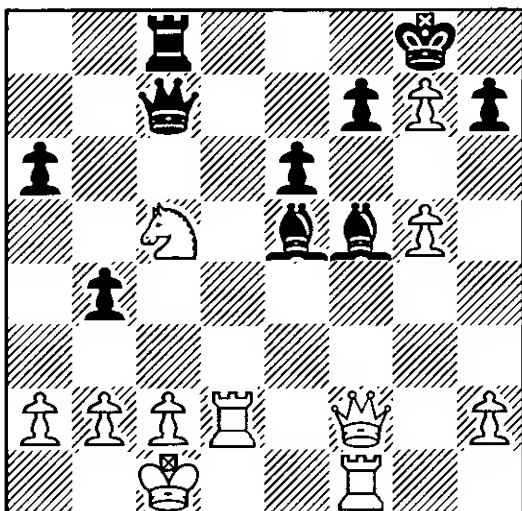
29 ♖d6! was even stronger.

29...♙a7 30 ♖e7 1-0

Here Black lost on time. His position is worse, but not yet without some chances of survival.

Sometimes it is necessary to calculate longer variations in order to make simple moves. The following is a good example.

Aagaard-M.Hofmann
Budapest 2003



White won the exchange by accident and would now like to play 29 ♖d7 ♙xg7 30

♖f6+ neutralising the two bishops. But Black also has the possibility of attacking the white king, so the consequences of this must be calculated.

29 ♖d7! ♙xb2+!?

Since 29...♙xg7 30 ♖f6+ is nice for White, Black decides to go for the sacrifice, but White is fully prepared.

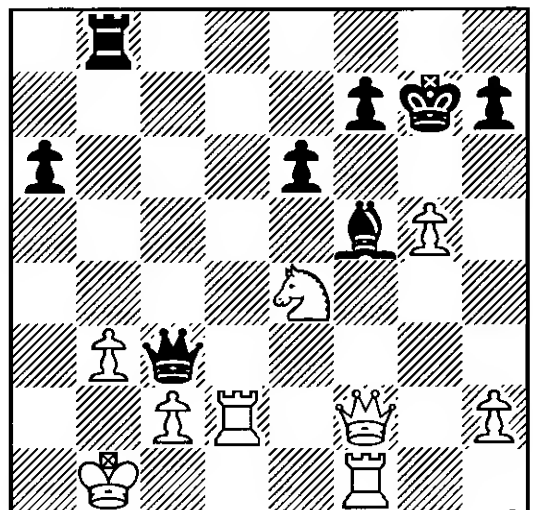
30 ♙xb2 ♚c3+ 31 ♙b1 b3 32 ♖f6+!

An important in-between move, otherwise ...♙g4+ is possible. Not 32 axb3? ♚xb3+ 33 ♙c1 ♚a3+ with perpetual check, since 34 ♙d1 ♙g4+ 35 ♖e2 ♙xe2+ 36 ♚xe2 ♖d8 gives Black a clear advantage. By interposing the check on f6, White avoids all this.

32...♙xg7 33 axb3 ♖b8!?

I am quite pleased at having anticipated this idea. If instead 33...♚xb3+ 34 ♙c1 ♚a2 35 ♚d4! (35 ♙d1 ♙xc2+ 36 ♙e2 ♚c4+ 37 ♙e1 ♙g6 38 ♚e3 also wins.) 35...♖xc2+ 36 ♙d1 and White wins.

34 ♖e4!?



This move, which I found easily because I remembered the analysis to Aagaard-Andersen above, is probably the simplest. The computer came up with the much more complex 34 ♙a2 ♖b5 35 ♖h5+ (35 ♖d4 should also win, but I did not like this – it seemed as if my king would be a little exposed, and the win therefore less certain) 35...♙g6 36 ♖f4+ ♙xg5 37 ♖g1+ ♙g4 38 ♖xe6+ fxe6 39 h4+ ♙h5 40 ♚f7+ ♙h6 41 ♚f4+ and White wins. It is probably a matter

of character which way you want to win, i.e. by long calculation or in a clearly winning endgame. Usually I would go for calculation, were the endgame not so easy.

34...♖xb3+!?

Desperation, but after 34...♙xe4 35 ♖xf7+ ♔h8 36 ♖f6+ ♖xf6 37 gxf6 the endgame is easily won White.

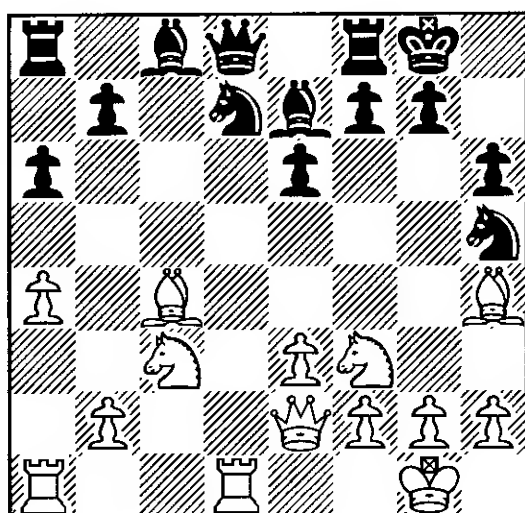
35 cxb3 ♖xb3+ 36 ♔a1 ♖a4+ 37 ♖a2 ♖xe4 38 ♖e1 1-0

Do not over-calculate

One of the dangers when you improve your calculating ability is to go with the flow and fall in love with complicated variations.

Botvinnik-Sorokin

Moscow 1931



Here White has the opportunity of playing a nice little combination, based on the loose knight on h5. Instead, the great Botvinnik played:

15 ♙xe7!

As explanation for his decision he gave the following line: 15 ♘e5?! ♙xh4 16 ♖xh5 ♖e7 17 ♘d7 ♙xd7 18 ♖xd7 ♙xf2+! 19 ♔xf2 ♖xd7 20 ♖d1 and White is only slightly better. I am sure that many a young man would be really proud of himself if he had performed such a tactical operation, gaining bishop and knight for rook. But the fact is that, although White is better, his advantage is not greater than after the simple exchange.

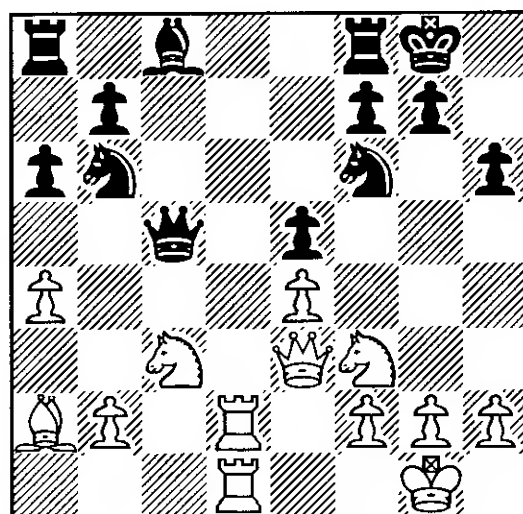
15...♖xe7 16 ♖d2!

Black has no easy way of freeing himself while White adds pressure.

16...♘b6 17 ♖ad1 ♖c5

White was planning ♖d2-d6. If instead 17...♙d7 18 ♘e5 ♘f6 19 a5 ♘xc4 20 ♖xd7 ♘xd7 21 ♖xd7 and this time White is very close to winning. 17...♖b4 18 ♖d4! would not have brought Black relief either.

18 ♙a2 ♘f6 19 e4 e5 20 ♖e3!



A famous decision. White now has a very large positional advantage.

20...♖xe3 21 fxe3 ♙g4 22 a5 ♘c8 23 ♖c1 ♙xf3 24 gxf3 ♘e7 25 ♘d5 ♘c6?! 26 ♘xf6+ gxf6 27 ♖d7 ♖ab8 28 ♔f2! ♘xa5 29 ♖cc7 ♖bc8 30 ♖xf7 ♖xc7 31 ♖xc7+ ♔h8 32 ♙d5 b5 33 b3 ♖d8 34 ♙g3 f5 35 ♔h4 fxe4 36 fxe4 ♖d6 37 ♙h5 ♖f6 38 h3 ♖d6 39 h4 ♖b6 40 ♙g4 ♖f6 41 ♖a7 ♖b6 42 ♖e7 ♖d6 43 ♖c7 ♖f6 44 ♖a7 ♖b6 45 ♖c7 ♖f6 46 ♙h5 ♖d6 47 ♙f7! ♖f6 48 ♙g6 ♘xb3 49 ♙xh6 ♖f8 50 ♖h7+ ♙g8 51 ♖g7+ ♔h8 52 ♙f7 ♖xf7 53 ♖xf7 ♙g8 54 ♙g6 ♘d2 55 ♖d7 1-0

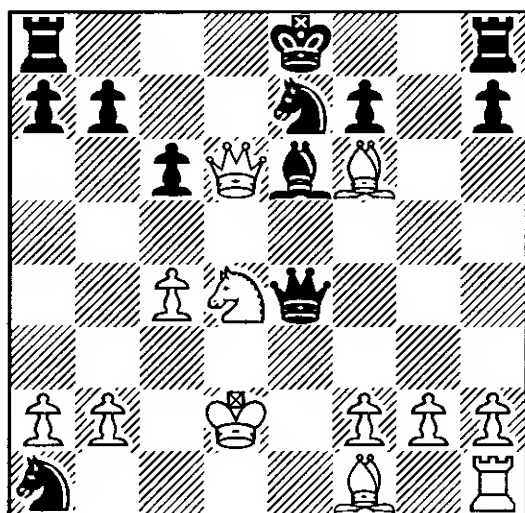
Defence and calculation

Most examples in this book, as well as in most other books on tactical play, have their basis in positions where either a win or a draw can be acquired by means of accurate continuation, or at least an advantageous position. I would like to finish this chapter

on longer lines with some observations on defence of difficult positions.

First of all, try to avoid forced lines when they are no good for you. The following game is a very good example.

Tunik-Shumiakina
Pardubice 1994



Black to play. What is the long forced sequence here?

15...dxf5!

This is the first move in a longer forced sequence.

Black could also try the very original idea of 15...dxf5! but unfortunately it does not work out after 16 e5xf5 d8 17 e3d3! (not 17 e5e5 c2+ 18 e3e3 c1+ 19 e3f3 d1+ 20 e4e1+ with perpetual check) 17...e5xf5 18 e5g3 e5xf5 19 e5g8+ (19 e5xe6 is again only a draw because of 19...e5xd3+!! 20 e5xd3 d1+ etc., but not 19...fxe6? 20 e5g8+ e5d7 21 e5xh7+ e5c8 22 e5e5! with a decisive attack) 19...e5d7 20 e5xh7 and now:

a) 20...e5c8 21 e5xe6 fxe6 22 e5e5 and White has a decisive attack.

b) 20...e5g4 21 e5f5+ e5xf5 22 e5xf5+ e5c7 23 e5e5+ e5b6 24 e5xf7 e5c8 25 e5e6 and the black position is beyond salvation.

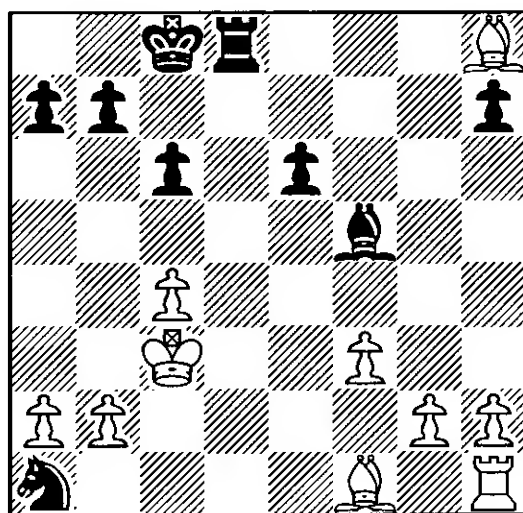
c) 20...e5g2 21 e5h4 e5c8 (21...e5xh8 22 e5xh8 e5xf2+ 23 e5e2 does not look promising) 22 e5f6 e5g8 23 e5f5 e5xf5 24 e5xf5+ e5b8 25 b3 and White is close to winning.

d) 20...e5g1 21 e5h4 e5c8 (or 21...e5g4 22 f3 e8 23 e5xg4+ e5xg4 24 f3xg4 e5xh8 25 e5f3 e5h3 26 e5e4 and White has the advantage; 23 e5e5! is also possible) 22 e5f6 e5g8 23 e5e2! and White has a very clear advantage as the knight on a1 will not survive. (23 e5xe6 fxe6 would be less clear.)

16 e5xf5 e5xf5 17 f3 e5e6

Not 17...e5c2+? 18 e5e1 e5c1+ 19 e5f2 e5c2+ 20 e5g1 and Black has no defence.

18 e5xe6+ fxe6 19 e5xh8 0-0-0+ 20 e5c3

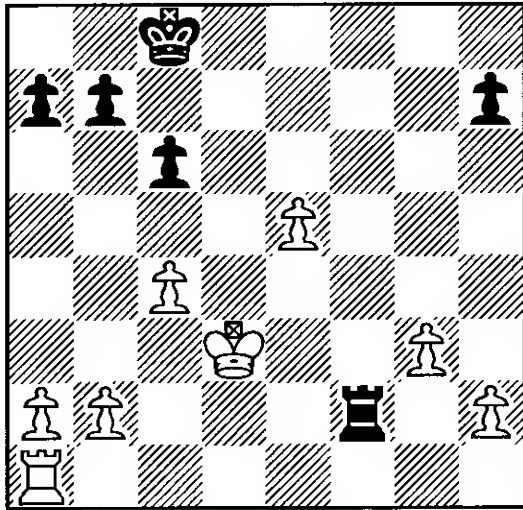


All this was forced. It is tempting to continue with the forcing lines, but first you should make sure that they are absolutely forced, and that they are in your favour. Here that is not the case.

20...e5xh8?

This leads to an inferior endgame. 20...e5c2! was much stronger, when White has problems with his development, e.g. 21 e5e5 e5d1 22 e5f4 (otherwise ...e5e3; here 22 g4?! e5g6 23 e5g2 does not work because of 23...e5e1! with a strong attack against the white king) 22...e5c5 when, in my opinion, Black has sufficient compensation for the exchange. This would be the starting point for the game. White has many moves at his disposal here. One fantasy line goes 23 g4 e5g6 24 h4 e5d4 25 h5 e5b1 26 e5e3 e5xf3 27 g5 e5d4 28 g6 h5xg6 29 h6 e5e2+ 30 e5b3 g5 31 e5xc5 e5g3 32 h7 e5xh7 33 e5xh7 e5xf1 with even chances.

21 ♖d3 ♙xd3 22 ♔xd3 ♜g8 23 g3 ♜f8
24 f4 e5! 25 fxe5 ♜f2 26 ♜xa1



26...♔d7?!

More natural perhaps was 26...♜xb2 27 ♜f1 ♜xh2 28 e6 ♔d8 29 ♜f7 ♜xa2 30 ♜xb7 h5 31 ♔e4 (not 31 ♔d4 ♜e2!) 31...♜a5 32 ♔d4 and White is also close to winning, though Black might have chances for a draw, plus this line is not forced of course.

27 ♜d1

27 ♔c3 ♜xh2 28 ♜f1! ♔e6 29 ♜f6+ ♔xe5 30 ♜f7 was also interesting.

27...♜xh2 28 ♔c3+

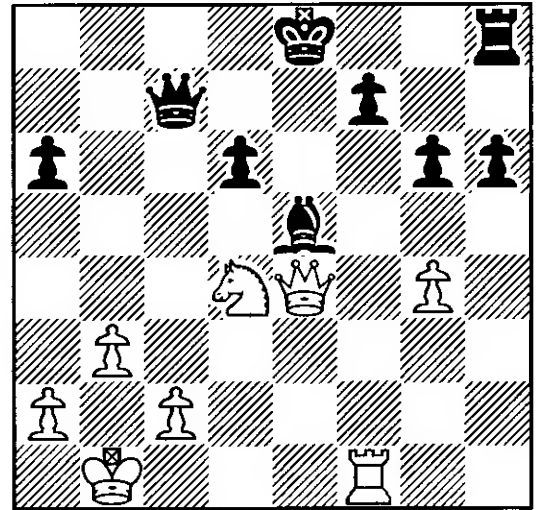
Also strong here was the line 28 ♔e4+!? ♔e7 29 b4 h5 (if 29...♜xa2 30 ♜h1 and White probably wins) 30 a3 with a very large advantage.

28...♔e7 29 ♜d4! ♜g2 30 ♜g4 ♔e6 31 ♜g7 ♔xe5 32 ♜xb7 ♜xg3+ 33 ♔b4 ♜g2 34 ♔c5 h5 35 a3 a5 36 b4 axb4 37 axb4 ♜g5 38 ♜h7 ♔e4+ 39 ♔xc6 ♔d4 40 c5 ♔c4 41 ♔b7 ♔xb4 42 c6 ♜b5+ 43 ♔c8 ♔a5 44 c7 1-0

When defending difficult positions, one of the main tools we have to apply is concrete analysis. There are often many ways for our opponent to put extra pressure on our position, but only few or one move for us to defend. We need to be very concrete and ready to think outside the box when given the chance. Here Black failed to do so and lost quickly.

Hermansson-Nolsoe

Taastrup 2002



Black to defend himself. Note that ...0-0 is not legal.

29...♜e7?

Now Black is in serious difficulties. Instead 29...♜c3!! was the correct move. Probably Black did not see that after 30 ♜a8+ ♔e7 31 ♜b7+ ♔e8!! White cannot improve his position. It is easy to ignore a move like 31...♔e8, since White has a tempting check on f7, but we need to be concrete and then we discover that 32 ♜xf7+ ♔d8 33 ♔e6+ ♔c8 34 ♔c1 does not give White anything after another subtle king move: 34...♔b8!! preventing 35 ♜a7, when it is not clear that White should have any advantage.

Actually 29...♜e7 could easily be eliminated and 29...♜c3 found on the basic grounds that Black has no other possibility that does not stink.

30 ♔c6 ♜e6

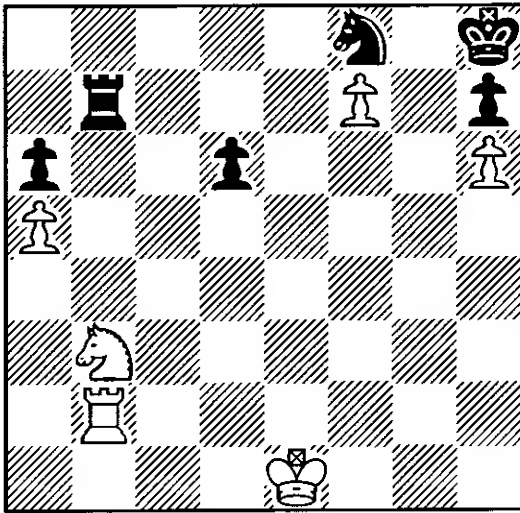
30...♜b7 was better, but after 31 ♜f3! (threatening 32 ♔xe5) White has a very strong ongoing attack.

31 ♔xe5 ♜xe5 32 ♜a8+ ♔e7 33 ♜b7+ ♔d8 34 ♜xf7 ♜e1+ 35 ♔b2 ♜e5+ 36 c3 1-0

The following example comes from a highly qualified and experienced author who trusts his computer and the original annotator, instead of thinking for himself. The mis-

take is quite a common one: we assume that the opponent will have to play along as a spectator to our genius, whereas he should instead follow his own agenda and try to avoid losing the game, or at least make it as difficult as possible for us to win it!

Kosikov-Bezman
USSR 1986



White moves and wins – or does he?

This position is taken from *Imagination in Chess* by Paata Gaprindashvili, which is a brilliant collection of *candidate moves* exercises, published just as this book was being completed. This is the only exercise in which I have found any mistake. I can truly recommend this book to anyone over 2000 who wants to improve their tactical ability. However, I am sure that more chess students than me will find the following exercise faulty.

50 ♖f2!?

This was the suggested solution, in fact, but the strongest continuation was 50 ♖c2! ♖xf7 51 ♖c6 and Black is still under some pressure. Now Black should find White's idea and defend himself against it, which is actually not so difficult.

50...♖xb3?

This is not the right way! Now White wins easily. Instead 50...♖e7+! 51 ♔d2 ♖e6 was the correct manoeuvre. Now ...♖xh6 is threatened, so White seems to have no

choice: 52 ♖g2 (52 ♖h2 ♖f6 is no improvement) 52...♖g6 53 ♖xg6 hxg6 54 ♔d4 ♔h7 55 ♖b5 ♔xh6 56 ♖c7 ♔g7 57 ♖xa6 ♖e6 and Black is at least no worse.

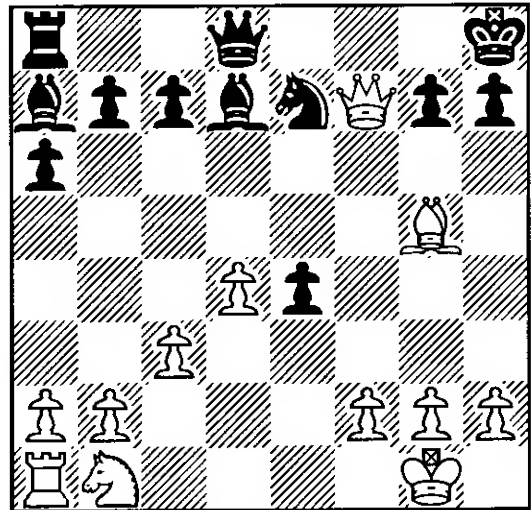
51 ♖g2 ♖b1+ 52 ♔f2 ♖b2+ 53 ♔g1 ♖xg2+ 54 ♔xg2

Now White is winning. It was not too difficult for Black to see this, so why did he play like this? The best guess I can give is that Black went along with the forced line because it seemed natural. Instead he should have been looking out for his own interests.

54...♖e6 55 ♔f2 ♖f8 56 ♔e3 ♖e6 57 ♔d3 d5 58 ♔e3 1-0

White wins the d-pawn, then the a-pawn.

Neukirch-Radulov
Sinaia 1964

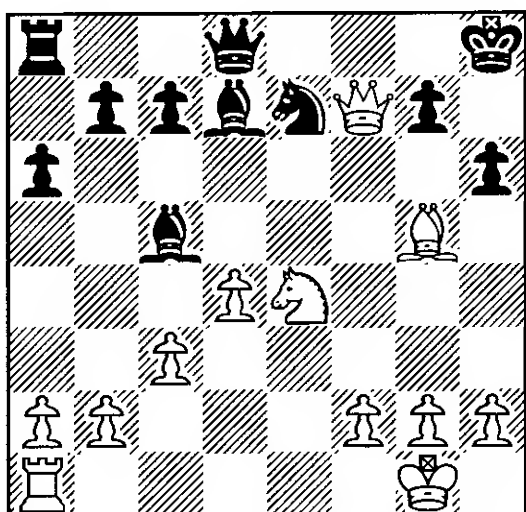


Black is a piece up but in a nasty pin. What now?

Not 15...h6? 16 ♔xe7 ♖e8 17 ♖xe8+ ♖xe8 18 ♔b4 and Black does not have serious compensation for his pawn. The main problem is that the a7-bishop is out of play, and White will have time to consolidate before it is activated via b8 with ...c7-c6. Notice that 18 ♔h4?! is less strong because of the tactical trick 18...e3 19 fxe3 ♖xe3 20 ♔f2? ♖e4 21 ♔g3 ♖xd4! and Black has a clear advantage, so White is forced to play 20 ♔d2 ♖e2 21 ♖d1 ♔f5 22 ♖f1 ♖xd2 23 ♖xf5 ♖xb2 with a draw.

15...♔c5!! 16 dxc5

When you make this sort of silent sacrifice, it is not enough to have an idea for their acceptance. It is just as important to have a defence against moves where the opponent ignores our generous offer, and proceeds unhindered with his own plans. For instance: 16 ♖d2! h6! (the only move; not 16...♙d6?? 17 ♖xe4 and wins, while 16...e3 17 ♖e4 exf2+ 18 ♜xf2 ♙b6 19 ♜h4 ♙c6 20 ♙xe7 ♜d5 21 ♙e1 leaves White with a clear advantage) 17 ♖xe4 and now:



How should Black continue here?

a) 17...hxc5?! (I dislike this as now it is Black who has to prove something) 18 ♖xc5! (not 18 ♖xg5 ♜e8 or 18 ♜h5+ ♙g8 19 ♖xg5 ♜e8 20 ♜h7+ ♙f8 21 dxc5 ♜g6 and Black is better) 18...♙e8 (Black does not have time for 18...b6? because of 19 ♖xd7 ♜xd7 20 ♙e1 ♙e8 21 ♙e3 and there is no defence, e.g. 21...g4 22 h3! g3 23 ♙e4 wins) 19 ♜f8+ ♖g8 20 ♖e6 ♜f6 21 ♜xf6 gxf6 22 ♖xc7 ♙c8 23 ♖xe8 ♙xe8 24 ♙f1 with an unclear endgame ahead. But if anyone is better here, it would probably be White.

b) 17...♙b6!! is a fantastic move, which would be easy to find had we not just played 15...♙c5. Why try to sacrifice the bishop and then, after White develops his knight, retreat it again? The short answer is tactics.

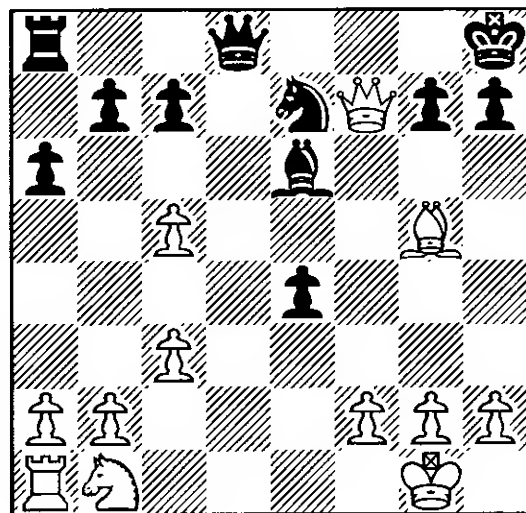
b1) 18 ♙xe7? ♜e8 and Black is better.

b2) 18 ♙xh6 ♜f8 19 ♜xf8+ ♙xf8 20 ♙g5 ♙e8 and Black is better again.

b3) 18 ♙e1? ♜e8 (18...hxc5 19 ♖f6) 19 ♜xe7 hxc5 20 ♖xg5 ♜xe7 21 ♙xe7 ♙e8 with a clear edge for Black.

b4) 18 ♖f6 ♖g8! 19 ♖xd7 ♜xg5 20 ♖xb6 cxb6 21 ♜xb7 ♙e8 22 ♜xb6 ♜d2 23 ♙f1 ♙e2 24 ♜xa6 ♜xb2 and the best White can hope for is a draw.

16...♙e6!



Was this move a shock for White? Apparently so, since he completely lost his marbles and then the game without a hint of defence.

17 ♜h5 ♜d5! 18 ♖d2?

Here White blunders and Black wins a piece. Was this a matter of lacking training in finding candidates? Clearly better was 18 c4! ♜f5 19 ♜h4 ♖g6 20 ♜g3 ♙xc4 21 ♙e3 ♜e5 22 ♜xe5 ♖xe5 with a level endgame.

18...h6 19 ♖xe4 ♙f7 20 ♜g4

Or 20 ♜h4 ♖g6 21 ♜g4 ♙e8 and Black gets the piece all the same. It still should not be an easy win, but clearly White was not on top form this day.

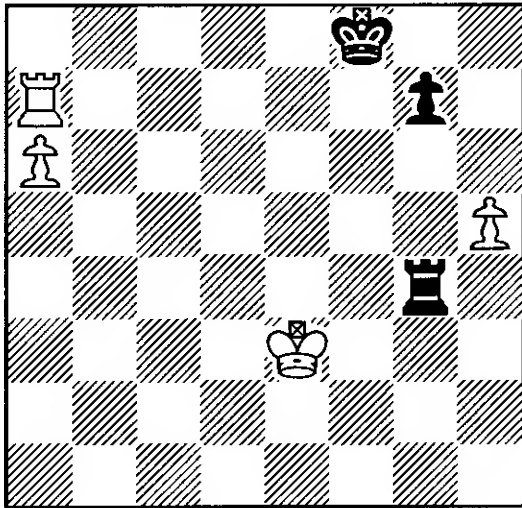
20...hxc5 21 ♖xg5 ♙d8 22 ♜h4+ ♙g8 23 ♜h7+ ♙f8 24 ♜h8+ ♙g8 25 h4 ♖g6 26 ♜h5 ♜xg2+! 0-1

Looking for new ideas when your first idea is parried

I have seen this more times than I care to remember. A student of mine has an idea (or I have an idea) and then sees a defence to it. This makes him scrap the variation, overlooking that, against the opponent's defen-

sive idea, he has another – often decisive – idea of his own. Here is a simple example.

Polugaevsky-Parma
USSR v. Yugoslavia 1965



Can Black draw?

Here Black resigned, having overlooked his defence on move 63. The problem was that he saw a natural way to play the position, but then saw an idea for White which countered it. This made him resign prematurely. Of course he cannot play 60...♔g8 61 h6! gxf6 62 ♖b7 and White wins, but the natural **60...♖a4!** should have been fine. After **61 ♖a8+ ♔f7 62 a7 ♖a1** Black was evidently afraid of **63 h6!** with the idea of 63...gxf6 64 ♖h8! and White wins. But Black has a counter idea, which makes use of the fact that all moves have disadvantages. Here the h-pawn has given up control of an important square, and after **63...♔g6!** Black cannot lose.

When *New in Chess Yearbook* #70 arrived on my doorstep I was quite excited. I had been trying to get a survey into the *Yearbook* for the last few issues, but had been unable to do so because of an amazing coincidence: all the subjects I offered to the editors had just been given to other strong players. One of these was a survey by Tibor Fogarasi in *Yearbook* #70 and I quickly looked this up. I was actually pleased that I had not done this survey,

but instead had been allowed to include a game at the last moment. In general Tibor had done a admirable job; however, regarding one game, Nijboer-Stellwagen, I realised that our impressions were different. He had seen the defence suggested by *Fritz* against Nijboer's clever piece sacrifice but, unlike me, had not stopped to look for further ideas.

Nijboer-Stellwagen
Groningen 2002
French Defence

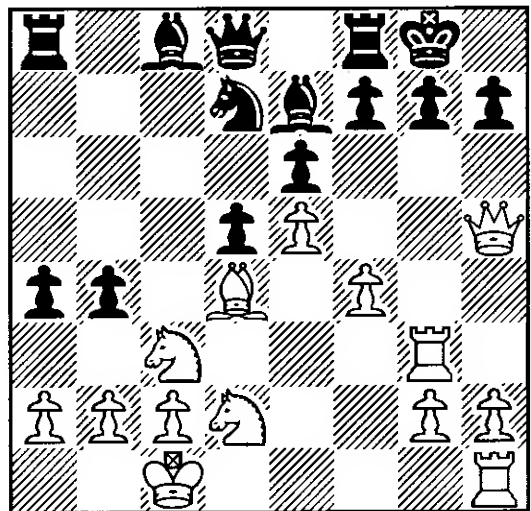
1 e4 e6 2 d4 d5 3 ♘c3 ♘f6 4 e5 ♘fd7 5 f4 c5 6 ♘f3 ♘c6 7 ♙e3 cxd4 8 ♘xd4 ♙c5 9 ♚d2 0-0 10 0-0-0 a6 11 ♘b3!? ♙e7

11...b6 12 ♙b1!? a5 13 ♙b5! gave White a slightly better game in Aagaard-Kraai, Budapest 2003. Fogarasi correctly points out that after 12 ♘e2 a5! Black has no problems.

12 ♙d3 b5 13 ♚e2 ♘b4 14 ♙d4 ♘xd3+ 15 ♖xd3 a5!? 16 ♖g3 a4 17 ♘d2 b4

Contrary to Tibor, I find this idea wildly inspiring and very deep indeed.

18 ♚h5!!



This is it. Can Black take the piece?

18 ♘d1 was the obvious alternative.
18...♔h8!

I do not believe that Black could have played 18...bxc3? 19 ♚h6 ♙g5 20 ♖xg5 cxd2+ 21 ♙d1 g6 (when Fogarasi says that Black wins) since White's attack is not over.

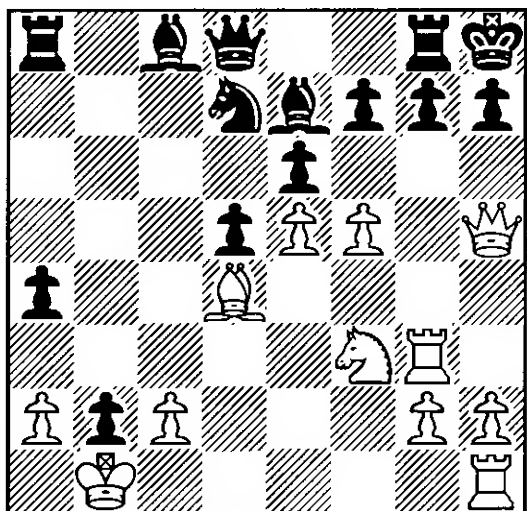
In fact Black has no defence on the dark squares after 22 h4! a3 23 h5 axb2 24 ♔xb2 ♖e7 25 f5! exf5 26 hxg6 fxg6 27 e6 ♜f6 28 ♜xg6+ ♜xg6 29 ♖xg6+ ♔f8 30 ♜xh7 and wins.

It is often the case, when calculating a line, that you see a defence against your primary idea and then abandon it. But we should not do so since, quite often, the defence against one line is far from being the conclusion. It is similar to boxing when fending off one punch often opens up for another. The same happens in chess: *every move will leave at least one square less well protected than it was before*. Therefore we should always look to see if new openings appear in our opponent's defences.

Now let us look at the rest of the game.

19 f5 exf5?

Here Black was forced to take on c3 in order to stay alive. The defence will cost him material. 19...bxc3! 20 ♖f3! (not 20 f6? cxd2+ 21 ♔d1 ♖xf6! 22 exf6 ♔xf6 and wins) 20...cxb2+ 21 ♔b1 ♜g8! (Black needs to defend his king; if 21...exf5 22 e6! ♖f6 23 ♖g5 g6 24 ♜h3 ♜g8 25 ♖e5 ♜g7 26 exf7 f4 27 g4 and White wins after 27...fxg3 28 ♜xh7+ ♜xh7 29 ♖xg6+ ♔g7 30 ♖xe7+ ♔xf7 31 ♖xf6+ ♔e8 32 ♖c6+ ♖d7 33 ♖g6+ ♜f7 34 ♖xc8 ♜xc8 35 ♜e1+ ♔d8 36 ♔b6+ ♜c7 37 ♖g8+ or 27...♔xg4 28 ♖xg4 ♔c5 29 ♖xf4 g5 30 ♖e3 ♔xd4 31 ♖xd4) and now White has many tries, but only one that works.



a) 22 ♖xh7+ ♔xh7 23 ♜h3+ ♔h4 24

♖xh4 fails to 24...g5! and Black wins, but not 24...exf5 25 ♖f3+ ♔g6 26 ♜g3+ ♔h5 27 ♜h3+ with a draw.

b) 22 ♜h3 ♖f8 23 f6 gxf6 24 exf6 ♔d6 25 ♖g5 ♜xg5 26 ♖xg5 ♖g6 wins.

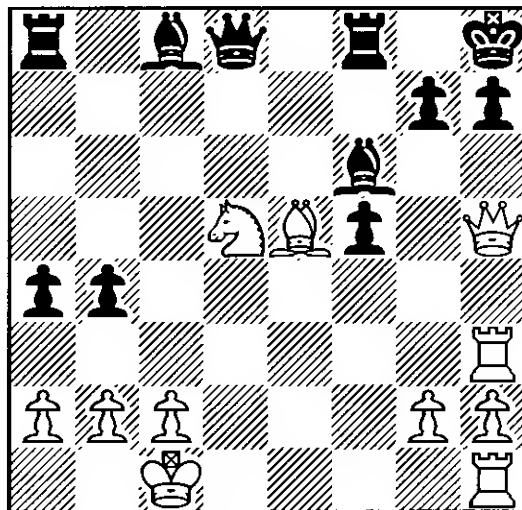
c) 22 ♖xf7 ♖f8! wins.

d) 22 f6! gxf6 23 ♖xf7 ♔c5 24 ♔xc5 ♖xc5 25 ♜xg8+! (not 25 exf6 ♖e4 26 ♖e5 ♖d2+ 27 ♔xb2 ♖c4+! 28 ♖xc4 dxc4 29 ♜g7 ♖d4+! 30 ♔c1 ♖e3+ and Black wins) 25...♖xg8 26 ♖xf6+ and White has perpetual check.

There is another important lesson in these variations: just because you cannot play a particular move at one moment, does not mean that you should not consider it again on the next. When we involve ourselves in concrete tactics, we should do so with a truly open mind.

20 ♖xd5 f6 21 ♖f3 ♖xe5 22 ♖xe5 fxe5 23 ♔xe5 ♔f6 24 ♜h3?!

Quicker was 24 ♔xf6 gxf6 25 ♖f4 ♜g8 26 ♖f7! intending 27 ♜h3 ♜g7 28 ♖g6+ mates, or if 26...♖f8 27 ♖g6+! immediately.



24...h6

If 24...♔g5+ 25 ♔f4 h6 (or 25...♔xf4+ 26 ♖xf4 h6 27 ♜d1 ♖e8 28 ♖g6+ ♔g8 29 ♖xf8) 26 ♖xg5 ♖xd5 27 ♜xh6+ ♔g8 28 ♖h5 gxh6 29 ♖g6+ ♔h8 30 ♖xh6+ ♔g8 31 ♖g6+ ♔h8 32 ♜e1 wins.

25 ♖xf6 ♜xf6 26 ♜d1 ♖f8 27 ♔xf6 ♖xf6 28 ♖e8+ ♔h7 29 ♜d8 b3 30 ♖g8+ ♔g6 31 ♜g3+ ♔h5 32 ♖e8+ 1-0

CHAPTER SIX

When it is time to Calculate

As has been described in the previous chapters, one of the most important features of calculating is to do it slowly and accurately. Of course this is also true in more complicated positions, where long and sophisticated calculation is required. The advantage of not overlooking an option cannot be underestimated, and the time thus saved can be measured in half and full points. To calculate a long line without the use of candidate moves can be compared to racing up a long ladder without first checking whether it is stood against the right wall. Obviously we can still get to the right place, and sometimes more quickly. But if we have no method to the madness we will waste valuable time in the long run, and this will severely diminish our playing strength and frustrate us, as we know that we are not displaying our full potential.

However... *If we see a tempting line it would be foolish not to calculate it immediately.* The reason for this is that we should not try to make our brains work in a mechanical way. We are not machines, nor computers. We have a certain psychology and it is important to use it to our advantage, whenever possible, and to diminish the disadvantages it can cause us. And as Oscar Wilde said, we can resist anything but temptation. When an option in a position is deeply tempting, it is hard to ig-

nore it completely. So what we should do first is to calculate it briefly, to see if it really is as promising as we think. We may then find that it is not so clear after all, and that we need to examine the variations more deeply and accurately than we could do at first glance. Then it is time to start looking for possibilities, slowly and thoroughly.

Actually we need to look for options even if our first impulse seems to be a killer. First of all we need to check our line once again, slowly, looking for surprises. A good question to ask ourselves is why our opponent would allow this tempting possibility. *One of the most stupid things in chess is to assume that our opponents are stupid.* Why? Because we cannot assume anything. The graveyard where all the failed brilliancies are buried could rightly be called Assumption Dump. So if we think our opponents is stupid, we need to prove that they are by accurate calculation!

In this way: *Calculating long lines is just like calculating short lines, only it takes more time.*

To give a good example of how this can be done in a practical setting, we will examine the calculating I did in one of my own games, where I had the feeling that I could invest as much time as I wanted in the position, since it seemed possible to calculate it to the end.

As we shall see I was partially right, and I calculated more or less correctly.

Aagaard-Brynell

Stockholm 2004

French Defence

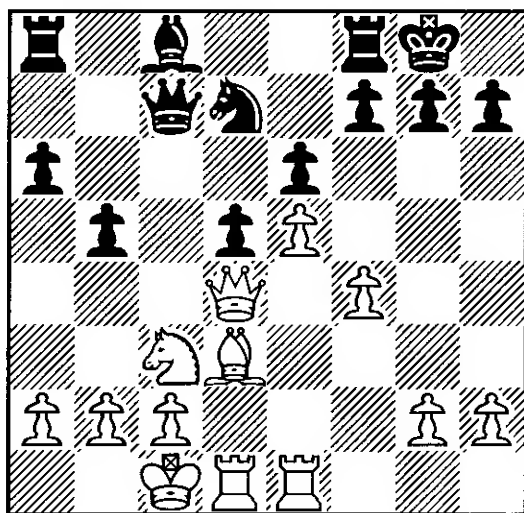
1 e4 e6 2 d4 d5 3 ♘c3 ♘f6 4 e5 ♘fd7 5 f4 c5 6 ♘f3 ♘c6 7 ♙e3 cxd4 8 ♘xd4 ♙c5 9 ♚d2 0-0 10 0-0-0 a6 11 ♚f2!?

Kramnik's idea, which lately has given Black some headaches. I have previously played the interesting 11 ♘b3 here – a move championed by Nijboer – but I thought Brynell might have prepared for this, so I chose another sideline that I felt comfortable with. The reason is that the mainline 11 h4 ♘xd4 12 ♙xd4 b5 13 ♚h3 b4 14 ♘a4 ♙xd4 15 ♚xd4 a5 has been analysed to death and gives Black an even game. I like the general play in these positions, but only when it is between the players present at the board.

11... ♘xd4 12 ♙xd4 ♚c7 13 ♙d3 ♙xd4 14 ♚xd4 b5

14... ♚c5 has also been seen. I am not sure that White is better after 15 ♘e2 b6 16 ♚he1, but it is a position White should not lose, and Black has very few winning chances. Part of my pre-match tactics was to allow for Brynell to stray from these passive positions, as a draw would do him no good either.

15 ♚he1!



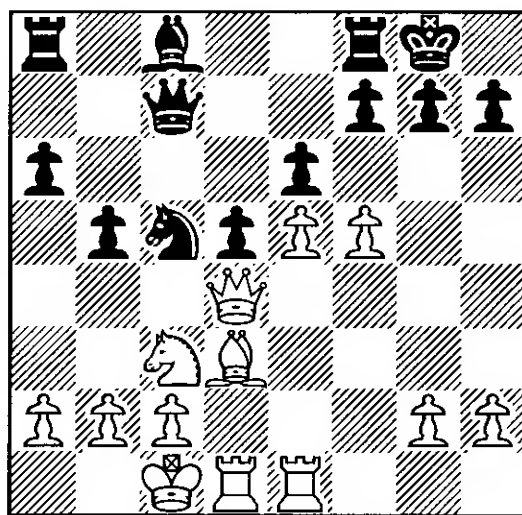
I was out of book here, but this move,

preparing both ♚e1-e3-h3 and overprotecting the e5-pawn in order to play f4-f5, seems logical and correct to me. Also possible was 15 ♚f2 in order to keep the queens on, but Black then has 15...b4 16 ♘e2 a5 followed by ...♙c8-a6 exchanging his problem bishop. Though White cannot prevent this idea forever, it is useful for him to postpone it.

15... ♘c5?

Stellan said that he had had this position once before, where he played the preferable 15... ♚c5 leaving White slightly better. Black has hardly any winning chances in the resulting endgame. Whether or not White's chances are that great is hard to say, but I had some strategic ideas from the games Korneev-Kraai, Zalakarov 2003 and Grishuck-Iljushin, Krasnoyarsk 2003, both of which White won, so at least I was not running blind.

16 f5!



Having being allowed to play this I hesitated for a few minutes to make sure that I was not rushing it. I have noticed that if you start playing real moves quickly (not calculating recaptures or already worked-out moves) you can suddenly find yourself moving too fast in positions where you had a definite choice and, afterwards, would have preferred to spend some time.

The move itself is obvious. White has a strong attack and also a good structure. It is important to notice that White does not need to play fxe6, but will focus on f5-f6, threaten-

ing the black king and keeping Black's pawns on light squares

Stellan now thought for about 50 minutes looking puzzled as to what had happened to him. He later explained that he had mixed up the theoretical variations, and that if ...♙c8-b7 and ♔c1-b1 had been included, then it would have been a known position in which Black should be OK. Now, however, he is very far from being OK.

16...exf5

There is really no choice. Black cannot allow f5-f6 with an attack; even after 16...♙xd3+ 17 ♖xd3 ♙c4 18 f6! I evaluated White's position as winning. The rooks will do a fine job attacking the black king and, as if this was not bad enough, White also has a wonderful endgame coming with knight vs. bad bishop. These things are less clear with two set of rooks on the board, as attacks against the king still play a part, but here it seems that White's attack will be stronger.

My little German friend thinks that desperate measures are necessary here, and that Black should consider 16...b4, but after 17 ♙xb4 ♖b8 18 ♙h4 ♙b7 19 f6 it begins to understand the enormous power of two heavy pieces and a far advanced pawn against a naked king. For those interested in theoretical issues, it should be said that a pawn this far advanced in attack is more or less worth a piece. This even works with the famous three piece rule, which says that you need three pieces to conclude a mating attack (to begin it you usually need an army), one to sacrifice itself, one to protect and one to mate. Incidentally, as some commentators observed, it is simpler to play 17 f6! bxc3 18 ♙xh7+! ♔xh7 19 ♙h4+ with a mating attack.

17 ♙xd5 ♙xd3+

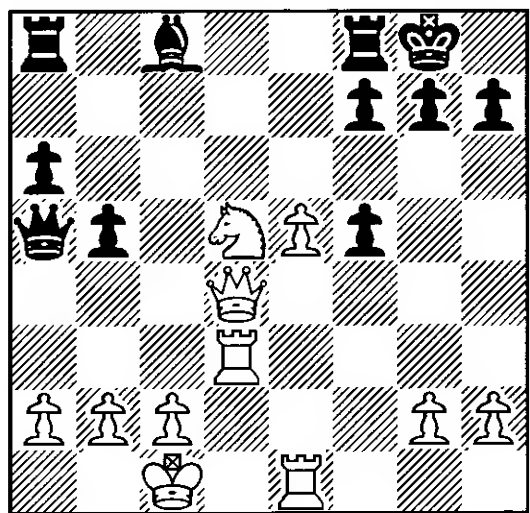
Stellan refrained from 17...♙a7 because of 18 ♙f4!. Black would then have to take on d3 anyway, or lose a pawn without solving any of his positional problems. The threat of ♙f6+ with a mating attack is also still present.

18 ♖xd3 ♙a5?!

Stellan had probably already accepted his defeat here. It must have been strange for him to play this game, in which only two results made sense, and draw was not one of them! However, his reasons for not playing 18...♙c4 (the only move) was that the endgame was hopeless. I considered answering this with 19 ♙f2!?, as the attack is still very strong, but most likely I would have counted on my limited endgame technique to do the job after 19 ♙xc4 bxc4 20 ♖d4 ♙e6 and then:

a) 21 ♙b6?! ♖ad8! 22 ♖ed1 ♖de8! is a fine line by Fritz 8. I actually rejected 21 ♙b6 because of 21...♖ab8 22 ♙xc4 ♖b4 when White is a pawn up but has four isolated pawns two of which are doubled, although White is still better of course.

b) 21 ♙c7! (I had not seen this at the time, but it is not hard to find, so I am sure I would have spotted it) 21...♖a7 (if 21...♖ac8 22 ♙xa6 and White will win) 22 ♙xe6 fxe6 23 ♖xc4 and White has excellent winning chances in the rook endgame. I would place one rook on c6 and the other on the d-file. Black might dream of exchanging the e5-pawn for the a-pawn, but even then the white king would be closer to Black's passed pawns and should therefore decide the game easily.



When you have such an enormous lead in development and four pieces ready to attack the enemy king (I include the e5-pawn rather than the e1-rook in this number), you begin to look for something you can calculate all

the way to the end. In fact White would like to find a forced win now, and logic encouraged me to think it was possible.

Obviously I have to pay attention to 19...♔xe1+ so that limits my possibilities. One move that springs to mind immediately is 19 ♖h4 with the idea of 20 ♘e7+ ♕h8 21 ♖xh7+ ♕xh7 22 ♖h3 mate. But of course my grandmaster opponent would not fall for such a cheap trick and would come up with some sort of defence. 19...♕h8 was the first move I thought of, and then after 20 ♘f6 h6! saves the day, at least for the time being. Nothing decisive comes to me immediately, so before I continue to calculate these lines, I choose to look for other moves. One move I did not consider at the time was 19 ♖ee3!? as suggested after the game by Stellan. Instead I quite quickly found a very tempting move, which I decided to investigate first. If it did not work out I would always be able to return to this position again.

The point was that I had only used 20 minutes so far, and as I deemed it very unlikely that the game would last until move 40, I had no reason to be careful with my time here. *The time we use in calculation should be reasonable according to where we think the game is going. We need to be able to spend a lot of time at the critical moments.* Because I had somehow learned this over the years, I did not spend much time thinking about either 15 ♖he1 or 16 f5. As these moves were possible why should I not play them? (Although I did stop for a minute or two at 18 ♖xd3, just to make sure I did not overlook some additional possibility.)

Anyway, I had spotted such a tempting move here, first of all because it was forcing, that I decided to forget about all other moves for the time being. Remember: *The most natural move to calculate first in this kind of critical moment is the most forcing move.* And the most forcing move here is:

19 b4

The point of such a move is not difficult to figure out. Black has a very limited choice

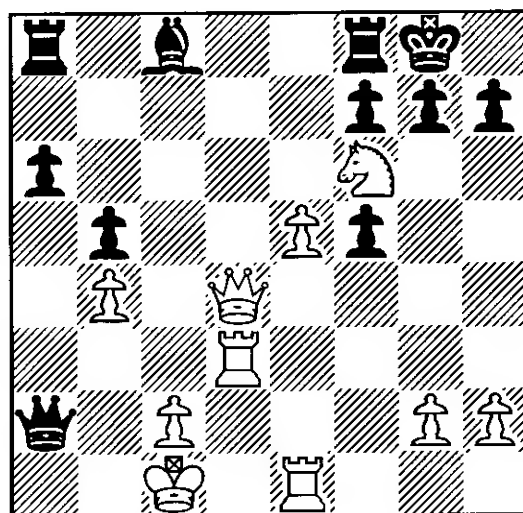
now, as 19...♔a4 20 ♘b6 and 19...♔d8 20 ♘f6+ both mean that the game is over immediately. So, out of his double attack (against e1 and a2), Black is forced to execute the least disturbing of the two, after which he no longer has any threats, and White can continue with his war effort undisturbed.

Though this logic seems sound, it should be remembered that White has just sacrificed a pawn and exposed his king madly. So although 19 b4 was found by strong intuition, it is necessary to calculate the consequences of such a move accurately before we execute it. In this position that means calculating it all the way to the end.

19...♔xa2 20 ♘f6+

As a human it is very difficult to play moves (or rather, it is very easy, but not so easy to do it well). We need to play ideas in the shape of moves. White's last move was an idea – it is easy to see that something forceful has to follow the pawn sacrifice and ♘f6+ is the only one. But in practice it actually works the other way around. First you notice the idea of ♘f6+ with an attack, and then you try to make it work. I had seen the variation 19 ♘f6+ gxf6 20 ♖g3+ ♕h8 21 ♖h4 ♔xe1 mate (Black's last move is his only defence, but it is quite a defence!), so I intuitively started to improve this line in my head, as well as looking for other candidates, and the result was 19 b4.

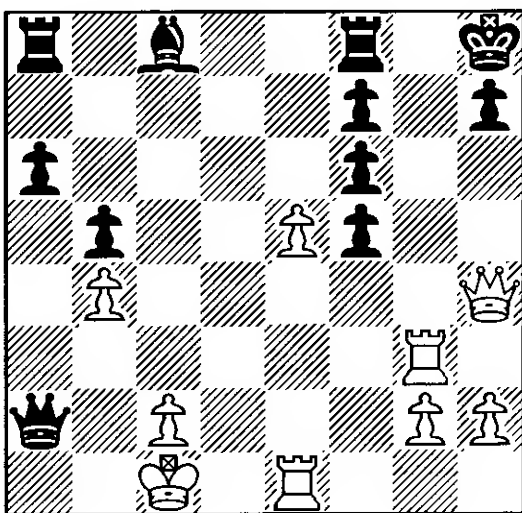
Now after 20 ♘f6+ Black has a choice.



Here I had to calculate two moves: the obvious 20...gxf6 and the other legal move, 20...♔h8. I chose to start with the latter as I felt that I would certainly have a winning attack after the former. After 20...♔h8 21 ♖h4 h6 I could not see a way to proceed. Here the method of candidates comes in handy. I used a little time and found another idea which did not seem to offer Black any defence: 21 ♖h3 h6 22 ♗f4 and after 22...♗a1+ 23 ♔d2 ♖d8+ 24 ♔e2 I will be allowed to play the winning 25 ♖xh6+ next move, if Black doesn't resign on me first.

But experience has taught me that when positions become muddy like this, you should calculate very accurately. Just because Black plays 20...♔h8 does not mean he will never take the knight, so after 21 ♖h3 then 21...gxf6 needs to be calculated. I realised that I had 22 ♗h4 with threats, but here my lack of training in calculation showed. The position was no longer clear in my mind's eye and the consequences of 22...♗a1+ were not obvious to me. So, for practical reasons I noted this line and decided to compare it with the main line, as the only difference is the position of the white rook after:

20...gxf6 21 ♖g3+ ♔h8 22 ♗h4



If possible, put the rook exactly between g3 and h3.

This is a matter of comparison. Instead of calculating the two long lines independently (which is of course possible, although time

consuming), I can simply check the line after 20...gxf6 and shift the rook between h3 and g3 whenever it seems there is a difference between the two. I quickly came to the conclusion that in some variations I would play ♖g3-h3 with an unstoppable threat of mate (e.g. 22...♗e6 23 ♖h3 with mate). So the rook would be better placed on h3 in most lines. Of course I have to keep my eyes open for the one case when it is not, but in this game there are none.

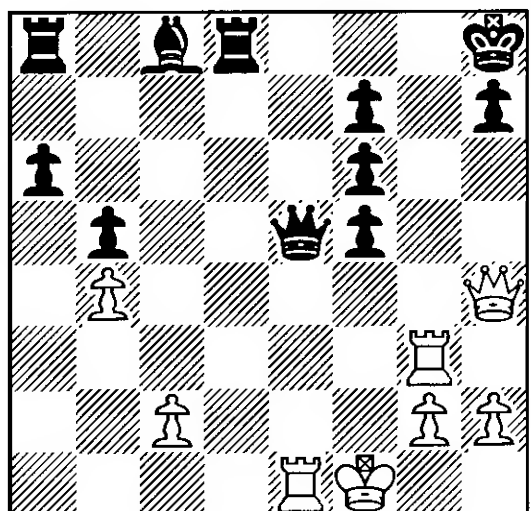
Now Black has no other way to prevent mate than delivering a few checks.

22...♗a1+ 23 ♔d2 ♖d8+ 24 ♔e2

When calculating the lines I actually believed that this was the winning move and that I would now either win the queen or mate my poor opponent. But having all the time in the world I started looking, simply searching the board for possibilities. After some time I managed to see Black's next move, which is rather obvious if you have the position physically in front of you, but as I did not, finding the move took me more time.

24...♗xe5+ 25 ♔f1

I needed to check if I had a choice here, but I simply noted that 25 ♔f2 (25 ♖e3 does not make sense) was possible. I did not see 25...♖d2+ or that Black can play 25...♗d4+ if the rook is on h3, but simply that 25 ♔f2 was possible, and that if anything was wrong with the most cautious move, 25 ♔f1, I could always return to this position.



This position then becomes another stepping-stone to me. I stopped here to search the board carefully. I looked for checks and defensive moves., the first being something that solved both of Black's problems, the trouble facing his queen and king. Black needs both to defend f6 and move the queen. 25...♔d4 is met with 26 ♕xd4! ♖xd4 27 ♖e8 mate, and 25...♕d6 is met by 26 ♖h3! and the black king is mated. (Here again I checked the difference between 20...gxf6 and 20...♕h8 and noticed that they are not important here and that 20...gxf6 still appeared to be the toughest defence.) There are no other squares from which the queen can solve both tasks, so I started looking for other moves. One that came up was 25...♕xg3, but never mind that White must be better if I just captured the queen, I took the time to see that I could also win immediately with 26 ♕xf6+! and the rook is picked up for free as well. (Here I also assured myself for the sixth time or so that the c8-bishop cannot deliver any checks.) So eventually I came up with the only move that seemed at all playable for Black.

25...♖d1 26 ♖xd1

Of course I need to look for other moves as well, but as White is still threatening a lot of things this natural move should be the first to be seriously investigated. I did briefly check for alternatives, but could not find any.

Now White is threatening mate on the back rank, as well as 27 ♕h6 and 27 ♖h3. Black should be lost. But as the material situation was still unclear and I had plenty of time on my clock, I checked his possibilities. In the game he played:

26...♕e6

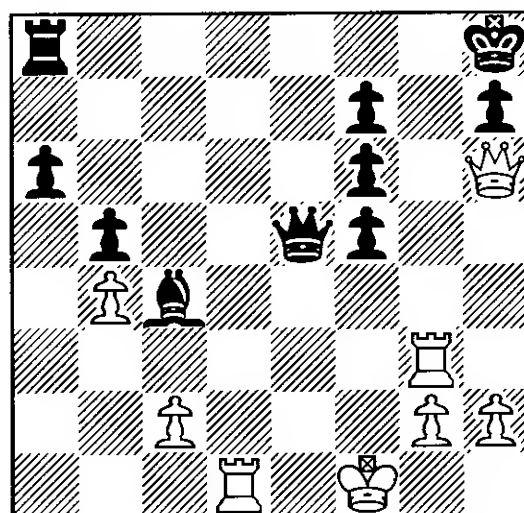
I had also seen 26...♕b7, which could be tried as the last resort trick of 27 ♖h3? ♕xg2+!, but I had seen 27 ♕h6, which wins on the spot. Later it turned out that 27 ♖d4!? also wins easily: the main threat is 28 ♕xh7+ and 29 ♖h4 mate, while after the only defence 27...♕e4 then 28 ♕h6 wins again. But

of course this is nothing but delaying the winning idea for one move.

27 ♕h6

27 ♖h3 was also possible.

27...♕c4+



On the evening after the game (which was kind of important to me, as I was playing for a GM norm), I wrote the following in my personal notes: 'Here something very interesting happened. I had played the last nine moves relatively quickly, but here I stopped to think. I thought both king moves won on the spot, but when I came home and inserted the game into my computer I realised that 28 ♕f2?? loses to 28...♕e2+ with mate in four moves. This experience was quite surreal and made me consider if it is such with chess and luck, that if you play enough, then you will eventually have such large amounts of it in a random tournament, that more or less everything works? Still, that would hardly have been this tournament. Anyway, out of sheer luck and a sense of danger, consciously developed over the last few years, I played 28 ♕g1.'

Later came to the conclusion that, because of a strange experience when I was 18 where I had a basic mate in one in a rapid game, but instead tried to play another mate in one which surprisingly was not there (how does a 2350 player miscalculate mate in one?!), I had learned my lesson and have since relied on the most simple move in situations where I

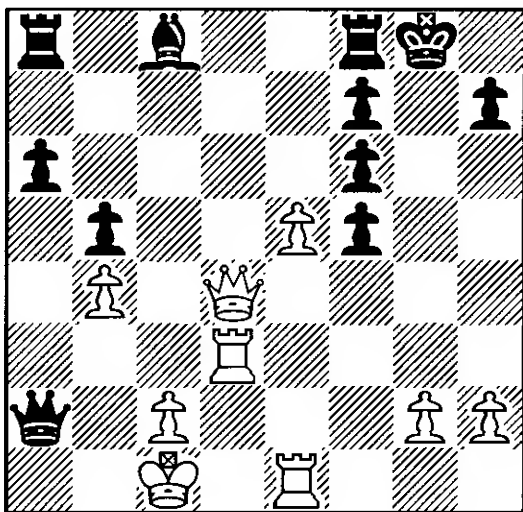
did not feel perfectly in control. Though there were 30 spectators to this game I did not seriously consider showing off or anything like that. The problem was that, this being the game for my first GM-norm, I was enormously excited and had been from the moment I had finished calculating 19 b4.

28 ♔g1 1-0

After I made this move Stellan offered his hand in defeat and congratulation at the same time.

I had seen the rest of the game when I played 19 b4, as well as having checked it again once I had finished it. I had the time, so why not? The game would be over if I was right. And if I was wrong it would be nice to know in advance.

Nevertheless, I like the alternative win found by *Fritz* more than my own. It goes like this:



21 ♔h4! f4 22 exf6 ♔h8 23 ♔h6 ♖g8 (I had actually seen that such positions could arise and that I had 24 ♖e8! winning, but much more beautiful are the full festivities with...) 24 ♔g7+! ♖xg7 25 ♖e8+ ♖g8 26 ♖xg8+ ♔xg8 27 ♖d8 mate.

When the game starts we are given 120 minutes for the first 40 moves (if we are lucky, that is...), but that does not mean we should use 3 minutes per move. First of all there is the opening, in which we are often

given 10-15 moves (or even more) for free, so we might actually have 110 minutes for 25 moves. But again that does not mean that we should strive towards not using more than 4 minutes per move. There will obviously be moments when the time is well invested and moments when it is not.

The following game shows a situation in which White found it necessary to use as much time as necessary on his next move.

Aagaard-Ong

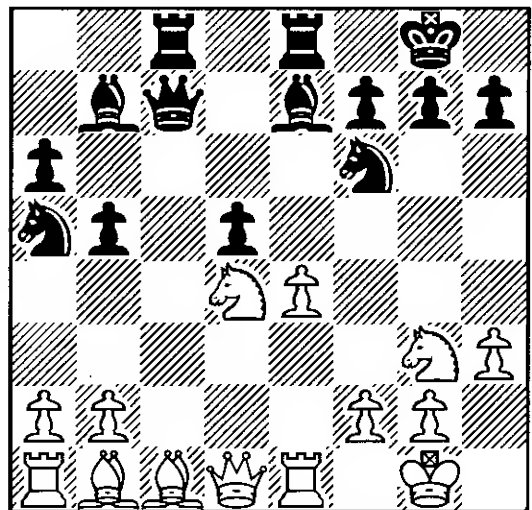
Sweden 2003

Ruy Lopez

1 e4 e5 2 ♘f3 ♘c6 3 ♙b5 a6 4 ♙a4 ♘f6
5 0-0 ♙e7 6 ♖e1 b5 7 ♙b3 d6 8 c3 0-0
9 h3 ♘a5 10 ♙c2 c5 11 d4 ♔c7 12
♘bd2 cxd4 13 cxd4 ♙b7 14 ♘f1 ♖ac8
15 ♙b1

15 ♖e2! is better according to *ECO*.

15...exd4 16 ♘xd4 ♖fe8 17 ♘g3 d5



How should White continue?

Here I sank into thought. When playing 17 ♘g3 a bit too quickly, I had overlooked a very simply point: that after 18 e5 Black would not have to play the pawn-losing 18...♘e4, but would instead reply with the vicious 18...♙b4! winning my e-pawn.

At first I thought I would have to play 18 exd5 with equality, but then I realised that 18...♘xd5 followed by 19...♙f6 would be by

no means equal. Black would have two wonderful bishops on the long diagonals, while my pieces are packed into the corner and I would surely have trouble facing my teammates after the game (as so often before, I started speculating about leaving the playing hall unseen but decided, for the hundredth time or more, that it would be very suspicious if I put on my jacket and made my way to the door).

So I started looking for alternatives. I found lines like 19 ♖e2 ♜xe5 20 ♙f4 ♜xe2 21 ♙xc7 ♜e1+ 22 ♚xe1 ♙xe1 23 ♙e5 ♙b4 24 ♙xf6 gxf6 25 ♙f5 ♜e8, but could not really make them work.

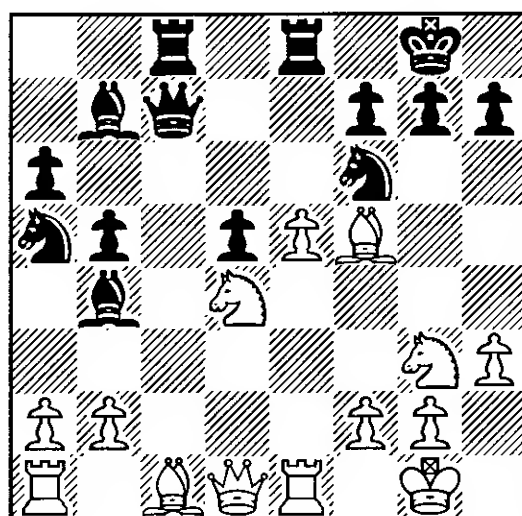
After perhaps thirty minutes thinking I decided it would not make any sense to look for a playable position after anything but 18 e5, as all other moves would hand over the initiative for free. This did not mean that I instantly played the move, but rather that I only analysed 18 e4 ♙b4 after this. Some might argue that I should then instantly play 18 e5 and only consider my position after 18...♙b4, but there are some arguments against this: firstly, that my opponent might think in this position as well, and might be considering moves other than 18 e5, while he has no alternatives at all to 18 e5 ♙b4; secondly, it is a safety mechanism. I had decided on mainly general grounds that the solution to my problem would start with 18 e5, but these might not be correct. If we could decide everything on general grounds, we would not need to calculate at all. *Abstract thinking is very useful in helping us with what we need to calculate, but it is not a method which can substitute for calculation itself.*

Anyway, after some 48 minutes I discovered the move I eventually played in the game. I used the next 5 or 6 minutes to check the variations before executing my moves.

18 e5

Played after 55 minutes I now had 45 minutes for the rest of the game.

18...♙b4 19 ♙f5!!



This move is not obvious at all. If I started making a list of candidates on the previous move, or even here, I am not sure I would be able to find it within the first 10 minutes. Firstly I needed to get the idea of allowing ...♙xe1 in order to prevent ...♜xe1+; then I needed to find a move, any move, which would work well as a waiting move. Obviously it could not be 19 ♙g5 because of 19...♜xe5 and I am just a pawn down.

The main reason behind the bishop move is actually to threaten the rook on c8 and nothing else. It looks counter-intuitive, as f5 is the natural square for the knights. But sometimes intuition and abstract thinking cannot solve our problems. We need to be very concrete and look for ideas.

19...♙xe1?

My opponent used only 10 minutes on deciding take the rook. I was secretly hoping for this move, which I considered completely worthless. He had played his first 18 moves instantly and should now have fallen into deep thought.

I had investigated the move 19...♜cd8 when White has two ways to proceed. 20 ♙g5 ♜xe5 21 ♜xe5 ♚xe5 22 ♘h5 ♘xh5 23 ♙xd8 ♘f4 'with compensation' for Black is given in *ECO*. I think Black might have even more than that. 24 ♙xa5 (or 24 ♙b6 ♘c4 25 ♙a7 g6 and Black looks better) 24...♙xa5 25 ♘b3 ♙b6 26 ♚e1 ♘e2+ 27 ♙f1 ♘g3+ 28 ♙g1 ♘e4 with an attack.

My idea, however, was just to play my previous line, now improved by the clearing of the first rank, i.e. 20 ♖e2!? ♘e4 (not 20...♖xe5? 21 ♙f4) 21 ♙f4 ♙c5 22 ♘b3 ♘xg3 23 ♙xg3 ♘xb3 24 ♖xb3 and the position is level.

As you can see my solution to the problems I was facing does not provide me with an advantage. But it does look as if it is the only way to avoid being worse in this position, so it can be called a definite success. I did not worry about the 55 minutes I had spent finding this idea, as I was sure that my opponent now would have to face real problems. *When the difference between two moves are minimal, it makes no sense to use a lot of time on deciding between them. But in every game there are critical moments where it is necessary to calculate. It is for those we store time, and when we face them we should not be afraid of using the time necessary to make a sound decision.*

Some players (such as Nunn and Larsen) have written that whenever they have used more than 20 minutes for a move, usually they have wasted this time or even committed blunders. Personally I have a different experience and have often seen absolute top players think for a long time over a single move. Probably it is a matter of taste as much as anything. But note that the purpose of using a long time on a move is not to gain control over each and every variation, but to make a decision. Here I did not need to spend a long time once I had discovered 19 ♙f5, but I still wanted to check a few lines in order to make sure that everything was OK.

My opponent taking just 10 minutes to capture on e1 is not so easy to understand. I have a feeling that he did not fully scan for candidates and perhaps only calculated for some time on taking the rook and then felt obliged to do so. Anyway, White was now pleased to have a pawn near the black king.

20 exf6! ♖b6

This was the move I expected, but I did manage to calculate some of his other possi-

ble replies (though not in detail). Here is an updated version of these analyses:

a) 20...♖cd8 21 ♙xh7+ ♔xh7 22 ♖h5+ ♔g8 23 ♖g5 and White wins.

b) 20...♙b4 21 ♙xh7+ (21 ♙d2!? ♙xd2 22 ♖xd2 ♖e5 23 ♘h5 h6 24 fxg7 should also win for White, though this line is a little strange) 21...♔xh7 22 ♖h5+ ♔g8 23 fxg7 f6 (if 23...♖e1+ 24 ♔h2 f6 25 ♖h8+ ♔f7 26 ♖h7 ♖g8 27 ♘df5 wins) 24 ♖h8+ (or 24 ♘df5 ♖e1+ 25 ♔h2 ♖xc1 26 ♖h8+ ♔f7 27 ♖h7 and wins) 24...♔f7 25 ♖h7 ♖g8 26 ♖h5+ ♔e7 (if 26...♔xg7 27 ♘gf5+ ♔f8 28 ♘e6 and Black is mated) 27 ♘gf5+ ♔d8 28 ♘e6+ ♔d7 29 ♖f7+ ♔c6 30 ♘fd4+ ♔b6 (30...♔d6 31 ♙f4 mate) 31 ♘xc7 and wins.

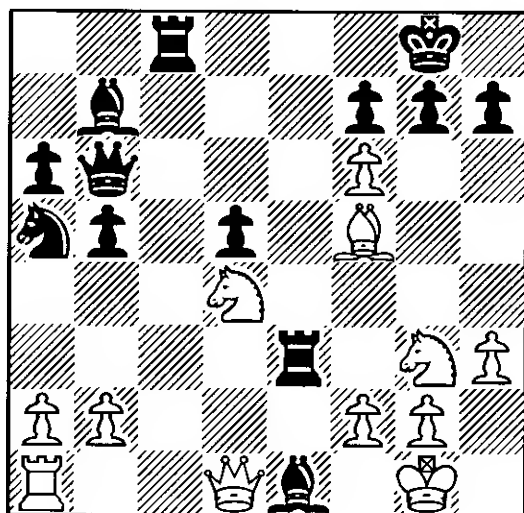
It is not necessary in practice to work out the details of these lines before taking the decision to refrain from regaining the exchange. All I had to do was see that a clear majority of variations seemed favourable for me. *Often complicated calculation should be replaced with an intuitive decision.* If you calculate everything in a game in order to stay in control, the only thing you can be certain of is that you will lose on time.

21 ♙e3!

This brings the bishop into play and protects the first rank and f2 at the same time. There are not really any alternatives.

21...♖xe3

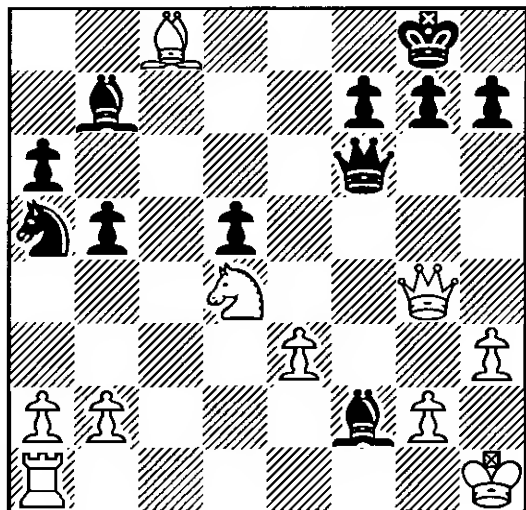
After 21...♖c4 22 ♙xh7+ ♔xh7 23 ♖h5+ ♔g8 24 fxg7 White has a winning attack.



22 fxe3!

This move might not look anything special, but in my opponent's time I had quickly worked out the following line, which showed that the tempting bishop sacrifice should be avoided: 22 ♔xh7+? ♔h8!! 23 fxc7+ (possible is 23 ♖h5 ♖xf6 24 ♘gf5 ♔xh3! 25 ♖xh3 ♔d2 but Black is not worse) 23...♔xh7!! (not 23...♔xg7 24 ♘gf5+ ♔xh7 25 ♖h5+ ♔g8 26 fxe3! and White has a winning attack) 24 ♖h5+ ♖h6 and Black is better. This kind of variation is not difficult for the experienced player to work out. That Black does not want to take the bishop on the first move in no way means that he will be shy to take it on the next. Awareness to such details will certainly win you games.

22...♔xg3 23 ♖g4 ♔f2+ 24 ♔h1 ♖xf6 25 ♔xc8



ECO gives this as winning for White in the game Kapic-Busemann, corr. 1990. The next day I tried to convince my team-mates that it was all theory and that I had been in full control, but they remembered very well my painstaking face from the day before.

25...h5 26 ♖d7 ♔xc8

This loses immediately, but Black is lost anyway. If 26...♔xe3 27 ♔xb7 ♔xd4 28 ♔xd5 ♔xb2 (or 28...♘c4 29 ♔xc4 bxc4 30 ♖c8+ ♔h7 31 ♖xc4 ♔xb2 32 ♔f1 and wins) 29 ♔e1 ♔a3 30 ♔e8+ ♔f8 31 ♖c7 ♘c4 32 ♔xc4 bxc4 33 ♖b8 and the game would be over all the same.

27 ♖xc8+ ♔h7 28 ♖c2+ g6 29 ♔f1 1-0

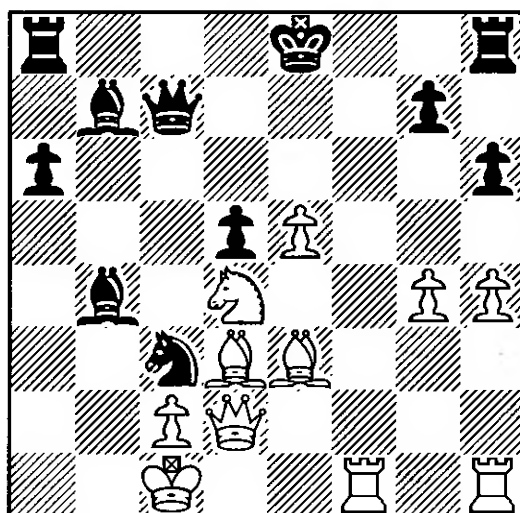
This game is a good example of how it is important to solve the problems arising right after opening theory (or your knowledge of it) ends. The following game is similar.

Aagaard-J.Eriksson

Sweden 2000

Sicilian Defence

1 e4 c5 2 ♘f3 d6 3 d4 cxd4 4 ♘xd4 ♘f6 5 ♘c3 a6 6 ♔e3 e6 7 f3 b5 8 ♖d2 ♔b7 9 g4 h6 10 0-0-0 ♘bd7 11 h4 b4 12 ♘a4 ♖a5 13 b3 ♘c5 14 a3 ♘xa4 15 axb4 ♖c7 16 bxa4 d5 17 e5 ♘d7 18 f4 ♘b6 19 f5 ♘xa4 20 fxe6 ♘c3 21 exf7+ ♔xf7 22 ♔d3 ♔xb4 23 ♔df1+ ♔e8?



This was the first new move of the game and, to my good fortune, it is a bad one. 23...♔g8 had been played in some previous games I had analysed. My opponent, on the other hand, was in trouble as 19 f5 was new to him. I now used 50 minutes to calculate the position to the end. A lot of this time was spent in vain as I simply did not realise that the bishop on b7 was hanging, but once I did, it was enough to win the game.

24 ♖f2!

The natural move. Black is now under heavy attack and cannot save the position.

24...♖a5

This looked at first to be the most intimi-

dating continuation, but the game is pretty clear-cut. No better were alternatives such as 24...♙a3+ 25 ♔d2 ♖e4+ 26 ♙xe4 dxe4 27 ♗f5 ♙d5 28 e6 and White is close to winning, or 24...♖f8 25 ♗xf8+! ♙xf8 26 ♙g6+ and White wins a piece (if 26...♙d7 27 e6+ ♙d6 28 ♙f4+).

25 ♗f7+ ♙d8 26 ♗xb7!

A move that can easily be missed. 26...♖e2+ 27 ♙d1! was the first point to find.

26...♗a1+ 27 ♙d2 ♖b5+ 28 ♙e2 ♖xd4+ 29 ♙xd4 ♗xd4 30 ♗xa8+ ♙e7 31 ♗b7+ ♙e8 32 ♙f5

32 ♗c8+ ♙e7 33 ♗c7+ ♙e8 34 ♙g6 mate was stronger, but being a rook up can make

some people a little careless.

32...♗xe5+ 33 ♙f3 ♗d6 34 ♗c8+ 1-0

An easy full point. It might look as if it was all worked out at home, but how often have we seen strong opening preparation go down the drain because of bad middlegame play? Here I had 1 hour and 55 minutes to win the game, and all I had to do was to use 50 minutes on my first independent move. After this I was just a rook up.

So when the moment comes to calculate, do not be afraid to indulge yourself in the position. This might be the critical moment when the game is decided.

CHAPTER SEVEN

Creativity and Combinational Vision

Although this is not a book on combinations (I already have written such a book, *Excelling at Combinational Play*, and I am actually quite happy with the result), I still want to discuss the issue of combinations, specifically in relation to creativity. In games between players of different strength many are decided because one player has a superior tactical vision and imagination. This is not necessarily because the combinations they play are correct, but because they understand the nature of combinations much better, and are therefore more open to the opportunities which arise after changing the nature of the game in brutal and tactical fashion. I would like to give below some examples of how innocent-looking positions can suddenly turn into tactical nightmares for one of the players who, being unprepared for the rapidly changing character of the game, can do nothing but watch his opponent demonstrate excellence.

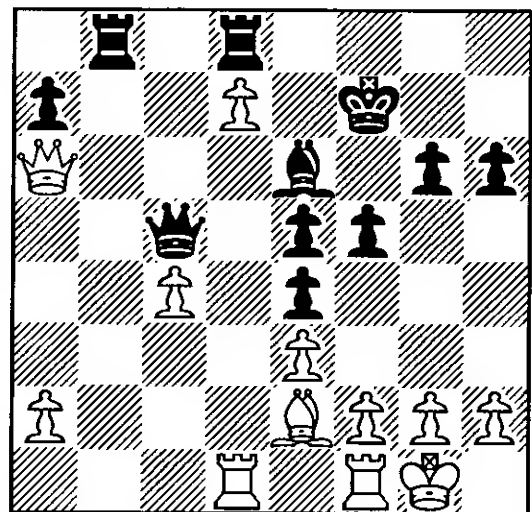
The first example is one of the most brilliant and imaginative games I have seen in modern times. The Indian grandmaster Krishnan Sasikiran presents us with surprises on almost every move. But respect must be paid to his opponent, Rasmus Skytte, for taking the bait and thereby helping in creating this piece of pure chess art.

Sasikiran-Skytte

Copenhagen 2003

Dutch Defence

1 ♘f3 g6 2 d4 ♙g7 3 c3 f5 4 ♚b3 ♘f6
5 ♙g5 c6 6 ♘bd2 d5 7 e3 ♘bd7 8 ♙e2
0-0 9 c4 e6 10 0-0 h6 11 ♙h4 ♚b6 12
♚c2 ♘e4 13 ♙e7 ♚e8 14 ♙a3 ♚d8 15
♚ad1 ♚f6 16 ♘xe4 dxe4 17 ♘d2 e5 18
d5 c5 19 b4 ♚a6 20 ♚b2 ♙f8 21 bxc5
♙xc5 22 ♙xc5 ♘xc5 23 ♘b3 ♚d6 24
♘xc5 ♚xc5 25 d6 ♙e6 26 ♚xb7 ♚ab8
27 ♚a6 ♚ed8 28 d7 ♙f7



White to play. Be creative!

Sasikiran now turns a complicated, though not particularly interesting middlegame into a

memorable game with a series of 'trick shots'. White has won a pawn, but only at the cost of advancing his d-pawn so far that it cannot survive. However, Black needs a few moves to round it up, and White would still have a small edge with his passed c-pawn. White now tries to provoke some weaknesses in the black camp which can be used later.

29 h4!?

The idea of this move is far from obvious.

29...♞b2?!

An ill-conceived plan. Sasikiran felt that Black would have been better off playing 29...♞e7 to liquidate the d-pawn, after which the scenario would be rather quiet.

30 h5!

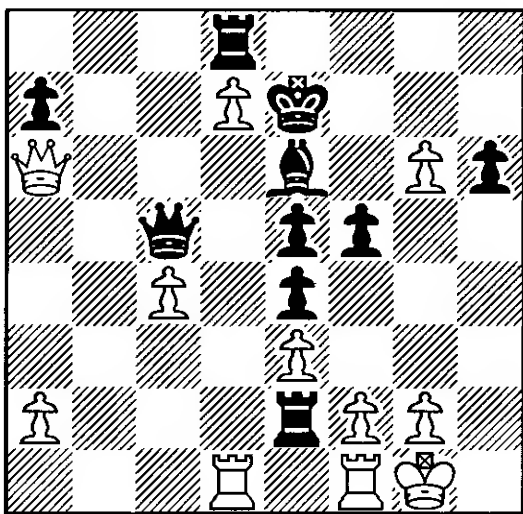
If you want to set yourself a difficult task, then try to guess the moves to come from the Indian grandmaster. I was following the game live, and though I was able to win his position against myself, I was only able to guess Sasikiran's most obvious moves.

30...♞xe2?

Objectively better was 30...g5 but Skytte did not see White's 32nd move. After 30...g5 White would be better but not decisively.

31 hxg6+ ♞e7

If 31...♞f6 32 ♞d6 and White wins fairly easily.



What did White intend?

32 ♞d5!!

A move which is easy to miss. There are

many ways to create this kind of imagination. One if them is by solving studies, another is by analysing with *Fritz* from time to time. Even though we should be careful not to let the computer think for us, we should still pay respect to the tactical awareness it can teach us.

32...♞b4

White wins in all variations from here on.

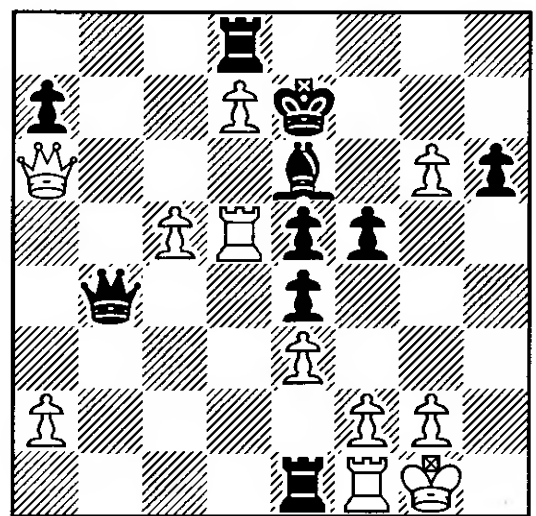
If 32...♞b6 33 ♞a3+ ♞f6 34 g7! (34 ♞d6? ♞xa2 35 ♞xe6+ ♞xe6 36 ♞xa2 is less clear) 34...♞f7 (or 34...♞xg7 35 ♞e7+ followed by 36 ♞d6 and wins) 35 ♞f8+! ♞xf8 36 gxf8♞+ ♞xf8 37 d8♞+ ♞xd8 38 ♞xd8+ ♞e7 39 ♞h8 and wins.

The aesthetic point of the combination was 32...♞xd5 33 cxd5 with the threat of ♞e6+, or if 33...♞xd5 34 ♞xe2 with ♞h5 to follow. Black cannot survive, even if he materially looks alright for the moment.

33 c5

Threatening ♞d6+ and the rook on e2.

33...♞e1



Why not take the road less travelled and be fully creative?

34 ♞xe5!?

Again far from the obvious choice. Later Sasikiran explained that his opponent was in time trouble and he wanted to avoid giving him obvious moves. Normally this sounds like a sound strategy, but when you have simple winning lines at your disposal, then the logic needs some discussion. Personally I

think that once you have this competitive mindset, it is difficult to switch around easily and be completely pragmatic. If you have this attitude towards playing in time trouble, you have it no matter what. And I am certain that Sasikiran knew what he was doing, even though he did not feel completely sure afterwards. White could also have won with the more straightforward 34 ♖d6+ ♕f6 35 ♖xe5+ ♕g5 (35...♕e7 36 ♖g7+) 36 ♖xe6 ♖xf1+ 37 ♕xf1 ♖b1+ 38 ♕e2 ♖xa2+ 39 ♕e1 and there is no perpetual check. Sasikiran demonstrated this afterwards in the commentary room, so he had seen it! Instead he chose to be as creative as possible.

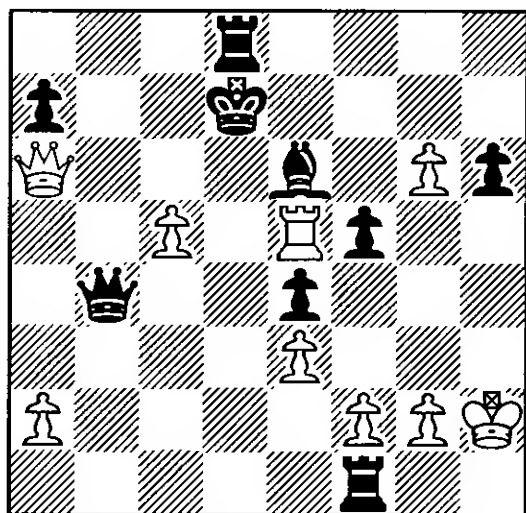
34...♖xf1+ 35 ♕h2!

The point.

35...♕xd7

The only move. If 35...♖xd7 36 ♖xe6+ ♕d8 37 g7 and White wins on the spot.

Now try to see if you are able to guess White's next move.



Once we are at it, why not be totally crazy?

36 g7!!

Simply brilliant! This move leads more or less to forced mate. And again it is not easy for Black to find his way. In the commentary room we went for the materialistic approach with 36 ♖xe6+ ♕c7 37 ♖e7+ (37 g7 also wins – Sasikiran) 37...♖d7 38 g7! ♖b8 (this was the move that Sasikiran did not like; instead 38...♖xe7 39 ♖xe7+ ♕d8 40 ♖f7!

♖b8+ 41 g3 ♖xf2+ 42 ♕h3 and White wins was for some reason obvious to him!) 39 ♖f8 ♖d8 40 ♖xf5 ♕c6+ 41 ♕h3 ♖h1+ 42 ♕g4 h5+ 43 ♕g5 ♖h2 44 g3 and White has a winning endgame on the way.

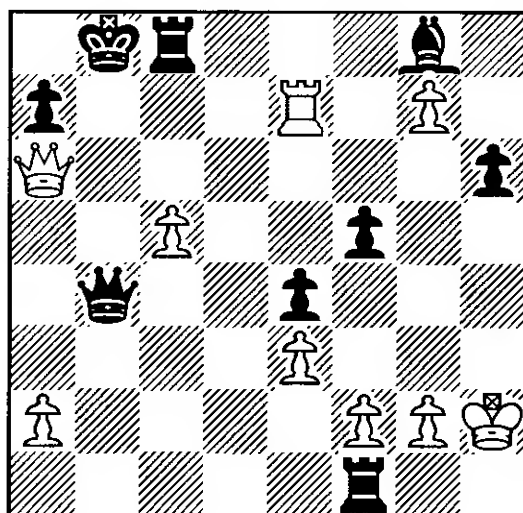
36...♕g8

If 36...♕c4 (or 36...♕f7) 37 ♖d6+ ♕c8 38 ♖c6+ ♕b8 39 ♖e7 ♖c8 40 ♖d7 and Black is mated. Sasikiran did not see 40 ♖d7 and was instead planning 40 g8♖ ♕xg8 41 ♖a6 which looks very much like the game.

37 ♖d6+

Finally Sasikiran finishes the game with obvious moves.

37...♕c8 38 ♖c6+ ♕b8 39 ♖e7 ♖c8 40 ♖a6



To have been aiming for this position is what we understand about being creative.

40...♖xc5

40...♖c7 41 ♖e8+ mates.

41 ♖xa7+ 1-0

There are of course differences between the two players in this game. Sasikiran is a strong GM (who later won the tournament) and Skytte is a normal IM. So there is a clear difference in strength between the two, which is shown by White's greater imagination and accurate calculation. But creativity was the main difference between the GM and the IM here. Had Black realised what was awaiting him, then he would hardly have entered this maze of tactics, but instead gone for 30...g5. Having the chance to test the

grandmaster's idea, the IM (incorrectly) took the risk and tried to win the game. We can only be grateful.

Creativity is not just a gift for geniuses. Some players are predisposed to creative tactics to an extent that others are not, but it is still something that can and *should* be trained. There are various ways to do this.

One of the most common is to be made more aware of tactics by analysing with a computer engine. I cannot repeat this often enough: *Awareness to tactics is the most important prerequisite for creativity*. Surprises cannot be found if we are not looking for them.

Another way (already mentioned above) is to solve studies – and lots of them! I have included some studies in the exercise-section of this book, as well as in the chapter *How to train calculation*.

A third way is by solving combinations. Top grandmasters know all typical combinations and are pretty good at finding non-standard combinations as well. Basically, *you can never solve too many combinations*. Unfortunately there are few really good books of exercises on the market. The old books are to a great extent filled with incorrect combinations and analysis. One of the main reasons for this is the absence of strong chess playing program in previous times. Another is the laziness of authors and editors. The right thing to do is to use the combination books that do exist and then specialise in finding the mistakes as well!

Though I do not like to advertise my own books, I think my hard work paid off and *Excelling at Combinational Play* proved to be a really good collection of exercises. Obviously not all exercises will be to everybody's taste, but by checking everything with *Fritz* I have managed to create a clear picture of what is right and what is wrong – though even the computer cannot spot all tactical mistakes.

I have added a mini-selection of combinations in the back of this book, which can be

used as a little test. Some are relatively easy, others are close to impossible. There should be something for everybody.

Creativity to change the course of the game

The creativity in Sasikiran's game was highly affected by the desire to obtain positional goals (the weakening of black kingside by advancing the h-pawn) without wasting time. Only Black's desire to test White's idea brought about the wild complications.

In the next example White is looking for a way out of equality or passive defence, and comes up with a highly original idea.

Vescovi-Miton

Aeroflot Open, Moscow 2004

Caro-Kann Defence

1 e4 c6 2 d4 d5 3 ♖c3 dxe4 4 ♗xe4 ♗d7 5 ♗g5 ♗gf6 6 ♕d3 e6 7 ♗1f3 ♕d6 8 ♜e2 h6 9 ♗e4 ♗xe4 10 ♜xe4 ♜c7 11 0-0 b6 12 ♜g4 ♖f8

12...g5 lost all credibility after Anand-Bologan, Dortmund 2003.

13 b3 c5 14 dxc5 ♗xc5 15 ♕b2 e5 16 ♕f5 h5 17 ♜h3 ♗e6!

This is the end of the opening and Black has equalised. 17...♕xf5 18 ♜xf5 ♖e8 is *Fritz*'s choice, but White should be better here.

18 ♕xe6 ♕xe6 19 ♜g3 f6

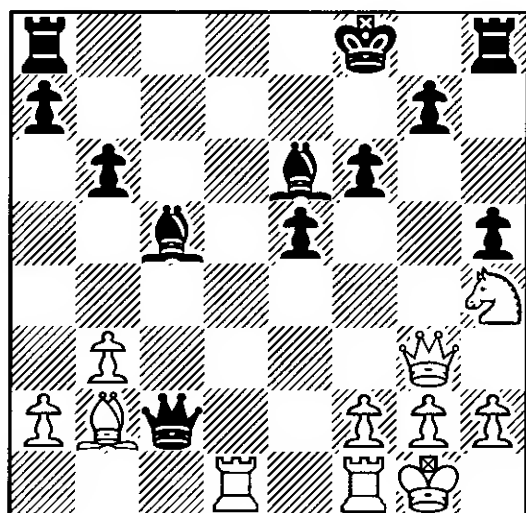
Also interesting was 19...h4!? 20 ♗xh4 ♜xc2 21 ♖ad1! ♜xb2 22 ♖xd6 ♖e8 23 ♗f3 ♜xa2 24 ♗xe5 ♖g8 and Black does not look worse.

20 ♗h4 ♜xc2!?

Definitely an adventure. Also possible was 20...♖g8 and it is hard to see any reason why Black should stand worse.

21 ♖ad1 ♕c5

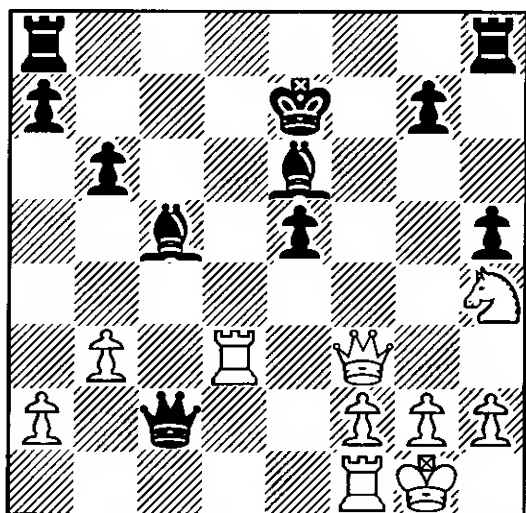
22 ♗g6+ ♖f7 23 ♗xh8+ ♖xh8 would give Black decent compensation for the exchange, so White comes up with a truly inventive blow!



22 ♕xe5?!?

What an imaginative move! The main point is simply to trap the black king in the centre and then take things as they come. Very often in Vescovi's games we see a readiness to take wild chances, with the belief that he will out-calculate his opponent in the resulting complications. In this game the combination can be defined as correct, since White did not have any advantage otherwise, but the important thing is the difficulties Black is suddenly facing in how to defend against all kinds of threats. It is safe to say that Black did not foresee White's idea, so he must suddenly have felt a bit uneasy, for what is next?

22...fxe5 23 ♖f3+ ♔e7 24 ♖d3!



How should Black continue?

This was the idea. Now 25 ♘g6+ winning

a rook or two is threatened.

24...♖hd8!

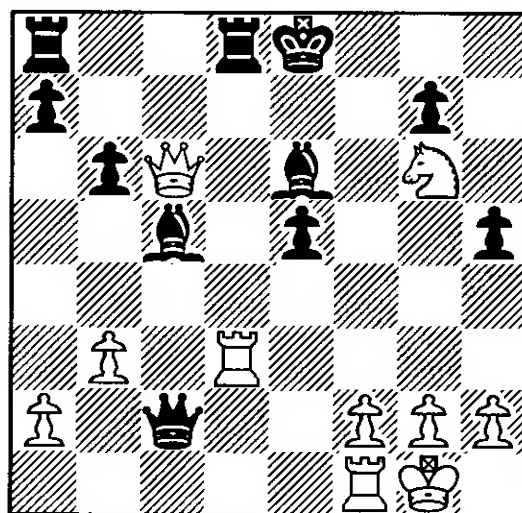
Black is walking a thin line. This – and only this – move was necessary, as the alternatives show:

a) 24...♖af8 25 ♘g6+ ♔e8 26 ♖c6+ ♔f7 27 ♘xe5+ ♔f6 28 b4! ♖c8 29 ♖f3+ ♔f5 30 bxc5 and White has a winning attack.

b) 24...♔d4 25 ♘g6+ ♔d6 26 ♘xe5! ♖c5 (not 26...♔xe5? 27 ♖e1+ ♔d6 28 ♖xd4+ ♔e7 29 ♖b7+ ♔f6 30 ♖xe6+ ♔xe6 31 ♖d7+ ♔f6 32 ♖d6+ ♔e5 33 ♖e6+ ♔f4 34 ♖d4+ ♔g5 35 h4 mate) 27 ♖e3! (simplest; 27 ♘g6!? ♖hd8 28 ♖xd4+ ♖xd4 29 ♖d1 ♖xd1+ 30 ♖xd1+ ♔c7 31 ♖xh5 also looks promising, but 27 ♖fd1?! ♔xe5 28 ♖e1+ ♔d6 29 ♖e3 ♖h6 is not clear at all) 27...♖xe5 28 ♖xd4+ ♔d5 29 ♖fd1 ♖ad8 30 ♖e4! ♖f6 31 ♖g3+ ♔d7 32 ♖xd5+ ♔c6 33 ♖de5 ♖d1+ 34 ♖e1 ♖hd8 35 h4 and White should win with his extra pawn.

c) 24...♖hc8? 25 ♘g6+ ♔e8 26 ♘xe5 and White wins as he has managed to defend the rook and can now go on a rampage with his queen, starting with 27 ♖xh5+.

25 ♘g6+ ♔e8 26 ♖c6+



26...♔d7??

Black simply blunders, which is very easy to do when exposed to such creativity. The correct line was 26...♔f7! 27 ♘xe5+ (if 27 b4 ♔c4 28 ♘xe5+ ♔g8 and Black made it home safe) 27...♔e7!! (not 27...♔f6? 28 ♖f3+! ♔xe5 29 ♖e1+ ♔d4 30 ♖xe6 and the black king

should not survive, though after 30...♔d6 31 ♖e3+ ♔d5 32 ♜c1 ♔c5 33 ♜xc2 ♔xe3 34 fxe3 White only has a winning rook end-game) was perhaps the move Black overlooked. Now White has three tries, but only one is OK. 28 ♖c7+ (the only way to continue, when the game ends in a draw; instead 28 ♖b7+ ♔f6 29 ♜f3+ ♔xe5 is no longer dangerous for Black, while after 28 ♜f3 ♜ac8 29 ♖b7+ ♔e8 30 ♖xg7 ♜d1 31 ♖h8+ ♔e7 32 ♖f6+ ♔d6 33 ♘c4+ ♔d7 the black king dances away) 28...♔e8 29 ♖c6+ ♔e7 30 ♖c6+ with perpetual check.

27 ♖d5!

Suddenly it is all over.

27...♔f8 28 ♘xe5 1-0

Creative awareness

Creativity is not just a method for throwing the opponent off balance. Sometimes creative awareness simply means that you can exploit the chances granted to you by the *un*-awareness of your opponent. In the following game a 2600-GM lost almost right after leaving the opening, because he did not pay enough respect to his opponent's creative opportunity. Mark Dvoretsky devotes a lot of time in his books and his lectures to talking about awareness of the opponent's counter-chances. Either Galkin has not read these books carefully, or else he just had an off-day.

T.L.Petrosian-Galkin

Aeroflot Open, Moscow 2004

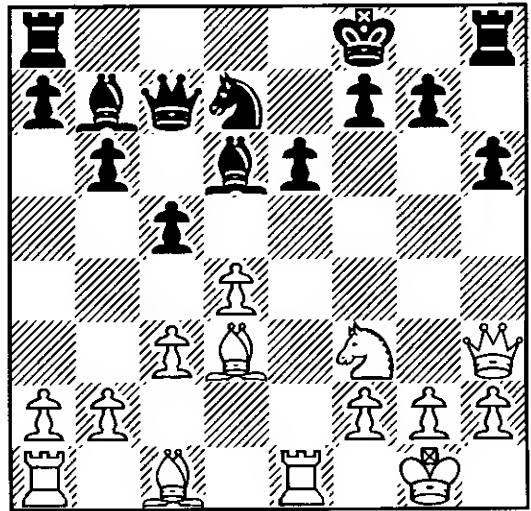
Caro-Kann Defence

1 e4

Incidentally, Tigran Petrosian is rated 2477 and is not the former World Champion, though he may well have been named after him.

1...c6 2 d4 d5 3 ♘d2 dxe4 4 ♘xe4 ♘d7 5 ♘g5 ♘gf6 6 ♔d3 e6 7 ♘1f3 ♔d6 8 ♖e2 h6 9 ♘e4 ♘xe4 10 ♖xe4 ♖c7 11 ♖g4 ♔f8 12 0-0 b6 13 ♜e1 ♔b7 14 c3

c5 15 ♖h3



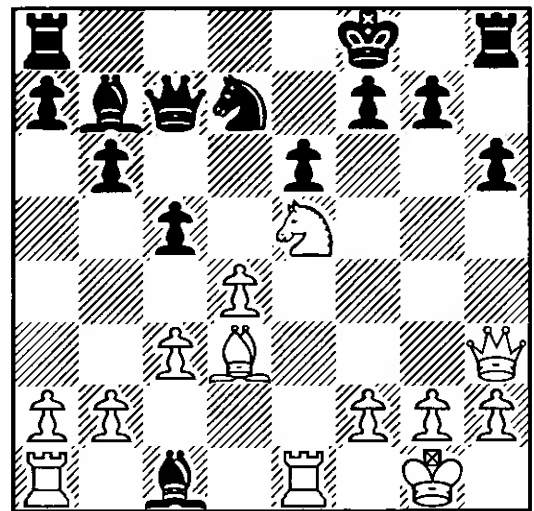
This is the end of the opening. Now Black has to think for himself.

15...♔f4??

A terrible blunder. Black should play something like 15...♜d8!? or 15...♜e8!?, though White seems a little better after 16 ♘d2!? with the idea of 17 ♘c4.

16 ♘e5 ♔xc1

After 16...♔xe5 17 dxe5 White is much better, since if 17...♘xe5 18 ♔f4 f6 19 ♜ad1 ♜d8 20 ♔xe5 fxe5 21 ♖xe6 and Black's position is horrible. Nevertheless Black should have tried 16...♔xe5 and lived with his ruin of a position, since now there is no chance to save the game.



17 ♘xf7!

The move Black must have overlooked. The sacrifice is completely decisive.

17...♔xf7

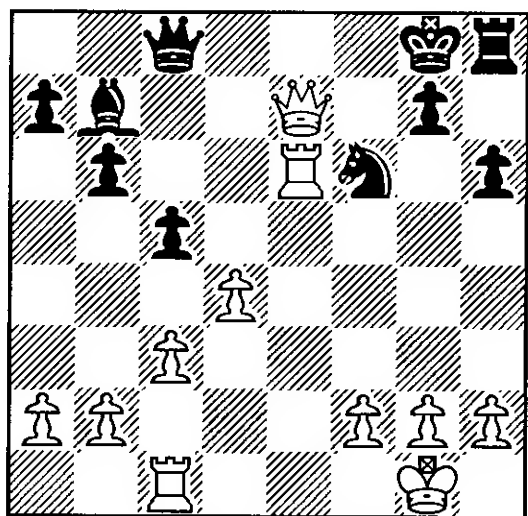
Forced, as 17...♙xb2 18 ♖xh8 ♙xa1 19 ♜xe6 wins for White.

18 ♜xe6+ ♗f8 19 ♜e7+ ♗g8 20 ♜axc1 ♜c8

Or 20...♙d5 21 ♙f5 ♜d8 22 dxc5 ♜h7!? 23 ♙g6! and Black has no defence.

21 ♙c4+ ♗h7 22 ♙d3+ ♗g8 23 ♙f5 ♖f6 24 ♙e6+ ♗h7 25 ♙f5+ ♗g8 26 ♙xc8 ♜xc8 27 ♜e6!

I like this move for reasons of principle, though *Fritz* prefers 27 dxc5!? bxc5 28 ♜e5 ♖d5 29 ♜h4 ♜c6 30 ♜ce1 ♖f4 31 f3 ♖g6 32 ♜c4+ ♗h7 33 ♜xc5 and White should win without much effort.



The last chance for Black to be creative.

27...♙a8?!

This passive move gives White the extra tempo needed for his attack to achieve full force. The best chance was to look for an endgame with 27...♖d5! when White would have to be careful:

a) 28 ♜d6? ♖f4! (but not time wasting moves like 28...cxd4? 29 ♜ce1 ♗h7 30 ♜g3! when White has a winning attack) 29 ♜e7 ♜g4 30 ♜b8+ ♙c8 31 g3 ♖h3+ 32 ♗g2 ♗h7 33 f3 ♜g5 when Black is in the game again and even has the initiative.

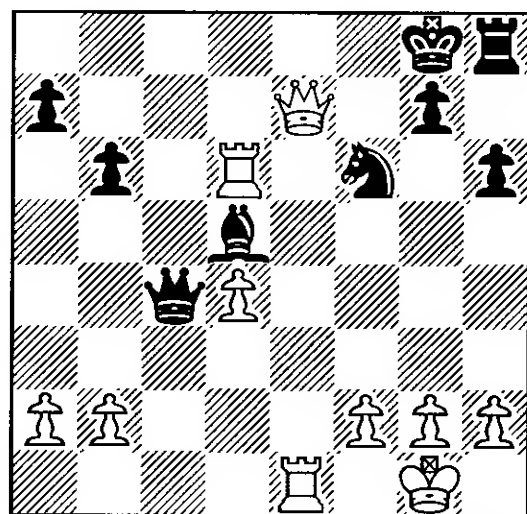
b) 28 ♜e8+! ♜xe8 29 ♜xe8+ ♗h7 30 ♜xh8+ ♗xh8 31 dxc5 bxc5 32 ♜e1 ♗g8 33 ♜e4 ♗f7 34 ♜c4 ♗e6 35 ♜xc5 ♗d6 and although White should win, Black has at least activated his king and thereby created some

chances for White to go astray.

28 ♜ce1 cxd4 29 cxd4 ♙d5 30 ♜d6

With the threat of ♜d8+, so Black has to move the queen.

30...♜c4



Attacking technique: what is White's strongest move?

31 ♜e5!

Forcing Black's next move.

31...♗f7

If 31...b5 32 ♜d8+ ♗h7 33 ♜f5+ g6 34 ♜d7+! ♖xd7 35 ♜e7+ ♗g8 36 ♜xg6+ ♗f8 37 ♜g7 mate, or 31...♙f7 32 ♜d8+ ♗h7 33 ♜f5+ and wins.

32 b3!

The black queen was defending the king by indirectly guarding the f7-square (i.e. after 32 ♜xf6+ gxf6 33 ♜h5+ ♗g7 34 ♜e7+ ♙f7). Now the attack cannot be stopped.

32...♜b5 33 ♜e7+ ♗g6

If 33...♗g8 34 ♜xf6! gxf6 35 ♜e3 and the absence of ...♜c1+ also is felt.

34 ♜e3! ♜c8 35 ♜g3+ ♗h5 36 ♜e5+ g5 37 ♜h3+ 1-0

Creativity forced by circumstances

Sometimes we can end up in a difficult situation where normal play will not help us to escape from our troubles. The following example is again from the Aeroflot Open in Moscow, where Rublevsky lost only one game in the entire tournament and that to

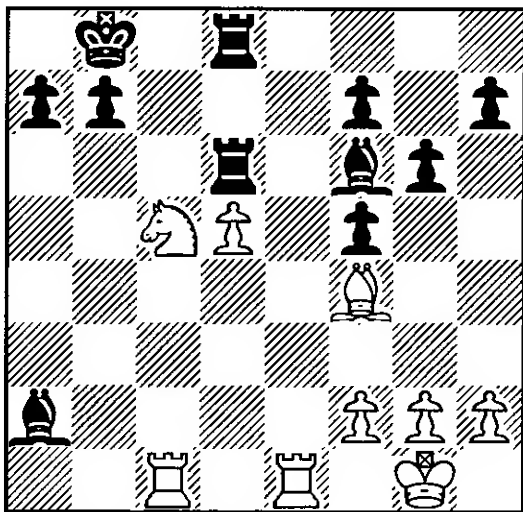
joint-winner Filippov. Here we join the game after White has played 29 d5 apparently winning everything. Black cannot solve all his problems, but he can improve his position and, in doing so, escapes via a very surprising constellation of the pieces.

Rublevsky-Filippov

Aeroflot Open, Moscow 2004

Sicilian Defence

1 e4 c5 2 ♘f3 e6 3 c3 ♘f6 4 e5 ♘d5 5 ♙c4 d6 6 d4 cxd4 7 cxd4 ♘b6 8 ♙b3 dxe5 9 ♘xe5 ♘c6 10 ♘f3 ♙e7 11 ♘c3 ♙f6 12 ♙e3 ♘a5 13 ♙c2 ♘ac4 14 0-0 ♘xb2 15 ♚e2 ♘2c4 16 ♘e5 ♘d6 17 ♚h5 g6 18 ♚h6 ♘f5 19 ♙xf5 exf5 20 ♖fe1 ♙e6 21 ♖ad1 ♘d5 22 ♘xd5 ♚xd5 23 ♘d3 0-0-0 24 ♚f4 ♚d6 25 ♖c1+ ♙b8 26 ♚xd6+ ♖xd6 27 ♙f4 ♖hd8 28 ♘c5 ♙xa2 29 d5



30 ♖e2 is coming. What now?

White has been very aggressive in this game and sacrificed some pawns to gain an attack, which has paid off with a pin on the black rook on d6 and problems for the bishop on a2. Black needs to do something about White's next move, 30 ♖e2, but it seems nothing can really be done.

29...a5!!

This pawn is definitely an asset. But this move has more to do with the coming ma-

noeuvre with the king.

30 ♖e2

White pushes his luck, but it is not with him today. If instead 30 ♘e6?! ♙a7 31 ♘xd8 ♖xd8 32 d6 a4 and Black has a very promising endgame. The a-pawn is very dangerous, much more dangerous than the d-pawn. After the text move with accurate play White should still be able to make a draw.

30...♙xd5 31 ♖d2

It looks as if Black is in deep trouble, but he comes up with a fantastic solution.

31...♙a7!!

The pin is resolved and the king comes to help from the side.

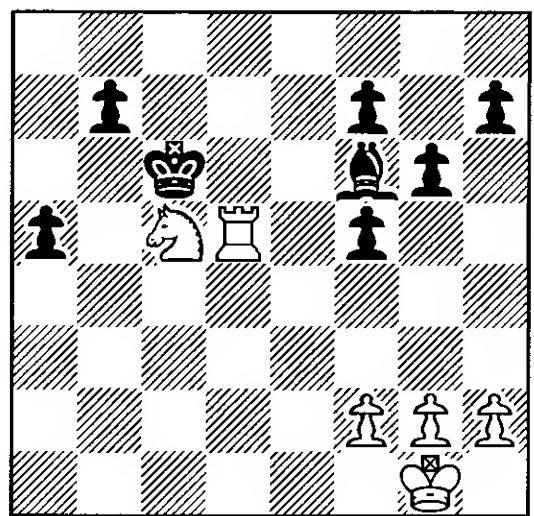
32 ♙xd6

If 32 ♖cd1 ♖e6! 33 ♙c7 ♖de8 34 ♘xe6 fxe6 35 ♙xa5 b5 and Black has a promising endgame, as the bishops are very strong.

32...♖xd6 33 ♖cd1

White was planning this of course, but Black is prepared.

33...♙b6 34 ♖xd5 ♖xd5 35 ♖xd5 ♙c6



A highly unusual situation. White is a rook up, but his position can only just be saved.

36 ♖d7!

36 ♘d7 ♙xd5 37 ♘xf6+ ♙d4! dominates the knight and the a-pawn wins for Black.

36...♙xc5 37 ♖xb7 a4 38 ♙f1?

White loses his grip in time trouble. He could probably still have made a draw in the following fashion: 38 ♖xf7 ♙c3! (with the idea of ...♙a5 is the most ambitious try;

38...♔d4 does not work since after 39 ♖xh7 ♕c4 40 ♖c7+ ♔c5 41 ♖c6 a3 42 ♖xg6 a2 43 ♖a6 White makes a draw) 39 ♖xh7 a3 40 ♖a7 ♔b4 (or 40...♕b4 41 ♖a6 ♕b3 42 ♖xg6 ♕a4 43 ♖a6+ ♔a5 44 ♖d6 draws) 41 g4! (ensuring that enough pawns are exchanged on the kingside) 41...♕b5!? 42 gxf5 gxf5 43 ♕g2! (the f5-pawn is the target; not 43 h4? ♔a5 44 ♖d7 a2 45 ♖d1 ♔c3 46 ♕g2 a1 ♖47 ♖xa1 ♔xa1 48 ♕f3 ♔c5 49 h5 ♕c5 50 h6 ♕d5 51 h7 ♕e6 and wins) 43...♔a5 44 ♖d7 a2 45 ♖d1 ♔c3 46 ♕f3 (just in time; now 47 ♕f4 is threatened) 46...♔e5 47 h4 ♕c4 48 h5 ♕b3 49 h6 ♕b2 50 h7 a1 ♖51 ♖xa1 ♕xa1 52 h8 ♖ ♔xh8 53 ♕f4 with a draw.

38...a3

Now it is all over as White will lose the rook eventually. The black king can hide on b1 using the bishop as a shield.

39 ♖a7 ♕b4 40 ♕e2 ♕b3 41 ♕d3 a2 42 ♖b7+ ♕a3 43 ♖a7+ ♕b2 44 ♖b7+ ♕c1 45 ♖c7+ ♕d1 0-1

Misunderstood creativity

The danger of being creative is that we can get carried away and in the process violate the rules of chess. When we are creative we often try to find more unusual ways to approach the truths of a position (most positions have more than one truth, which is where style comes into the picture). Players like Morozevich, Speelman and Shirov often try to bend the laws of chess and take the game into less known territories, where an exact evaluation of the position is impossible to perform. The games of Tiger Hillarp Persson below are a good example of the creative mind in action, while the following games by Khenkin and Lautier show how it is possible to 'create' a difficult position for yourself by being too creative right from the beginning.

In the next game Khenkin plays the off-beat 4 ♖a4+!?, which can be interesting and has its practical uses, but should not objectively give White an advantage. After having played this rather fresh move Khenkin con-

tinues as if his opponent had played something improper, and duly gets punished.

Khenkin-Rublevsky

Aeroflot Open, Moscow 2004

Queen's Gambit Accepted

1 d4 d5 2 ♘f3 e6 3 c4 dxc4 4 ♖a4+!?

This is a creative move, but I dislike this kind of creativity which is not based on sound principles. Of course this move is playable, but now White continues very ambitiously, which he simply cannot do.

4...♗d7 5 e4 c5!

With his last move White weakened his central dark squares and Black instantly attacks them – sound opening play.

6 ♔xc4 cxd4 7 0-0?!

This does not look sound. It was better to play 7 ♗xd4, albeit with no advantage at all.

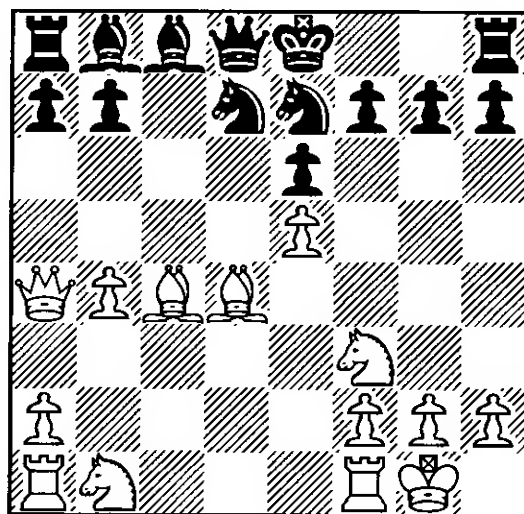
7...♔c5 8 b4

White needs to play with great vigour. After 8 ♗bd2?! he does not win the pawn back, as Black has 8...a6! 9 ♗b3 ♔a7 when he keeps the advantage because of ...b7-b5.

8...♔d6 9 e5

9 ♔b2 e5 is just good for Black. The same goes for 9 ♗xd4 ♖c7! and Black is a little better. Note that 10 ♗b5? does not work because of 10...♔xh2+ 11 ♕h1 ♖xc4!.

9...♔b8 10 ♔b2 ♗e7 11 ♔xd4



White has regained his pawn and it looks as if he has a space advantage. But in reality

his pawns are weak and he will need to play accurately just to keep the position level.

11...0-0 12 ♖e1!

White needs to reinforce e5. After something like 12 ♖b3 ♘c6 13 ♖d1 ♗c7 he is in a bad way.

12...♘f5 13 ♖b2 ♘b6 14 ♖b3 ♘xc4 15 ♗xc4 ♖d7 16 ♘c3

Here it was interesting to try to restrict the black bishop by 16 b5! ♖b6 17 a4 a6 18 ♘c3 with a complex middlegame ahead.

16...♖c6 17 ♖ad1 ♗e7 18 ♘d4

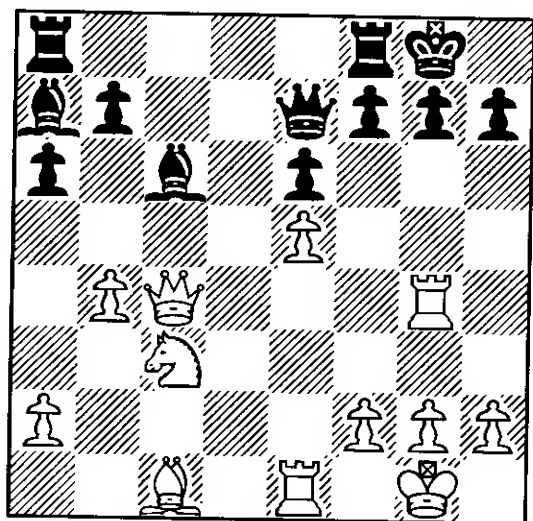
White is not happy with the threat of ...♖xf3, and 18 ♘e4!? seems uncomfortable as Black plays 18...a6! 19 ♘d4 ♘xd4 20 ♖xd4 ♗h4 21 ♖c5 ♖xe5! 22 g3 ♗h5 23 ♖xf8 ♖xf8 with excellent play for the exchange.

18...♘xd4 19 ♖xd4 a6! 20 ♖g4?

White is looking for active counterplay, but his chances are not on the kingside. He could still have kept the balance had he played 20 a4!? ♖a7 21 ♖d3 ♖ad8 22 b5 ♖xd3 23 ♗xd3 ♖d8 24 ♗e2 axb5 25 axb5 ♖d5 26 ♘xd5 ♖xd5 27 ♖d1 and, though Black has a more comfortable position, White should be able to make a half point.

20...♖a7 21 ♖c1

White is now ready to start his counterplay on the kingside with ♖c1-g5-f6. But Black is in full control of the position and he stops it before it becomes unpleasant.



Black replies to creative opening play with a creative and sound solution.

21...f5!!

With this paradoxical move Black solves all his problems at a stroke: he either clears the ranks for his pieces to defend the king or, as in the game, he gives up a pawn and gets open files for his rooks.

22 exf6

If 22 ♖g3 f4 (the alternative plan of 22...♗e8!? and 23...♖d8 is also very attractive) 23 ♖g4 f3 24 g3 ♗h8 and Black has the advantage.

22...♗xf6 23 ♖f4 ♗g6 24 ♗xe6+ ♗xe6 25 ♖xe6 ♖fe8!

The f4-rook is badly placed while the one on e6 is excellent. It is therefore easy to see which rook Black should exchange.

26 ♖xe8+ ♖xe8 27 ♖f1

The alternatives were:

a) 27 ♖e3?! ♖xe3 (27...♖xe3 28 fxe3 ♖xe3+ 29 ♖f2 ♖d4 30 ♘e2 ♖xf2+ 31 ♖xf2 ♖f7 is better for Black, but winning would not so easy) 28 fxe3 ♖xe3 29 ♖c4 ♖e1+ 30 ♖f2 ♖c1 and Black should win without too much trouble.

b) 27 ♖d2!? was possibly better, even though 27...♖b8 looks similar to the game. Instead 27...♖d8 28 ♖e3 ♖xe3 29 fxe3 ♖d3 30 ♖c4 ♖xe3 31 ♖f2 gives White a fair chance for a draw.

27...♖b8 28 ♖c4

28 ♖g4 ♖e5 29 ♖d2 ♖d8 also gives Black excellent compensation for the pawn, but White should perhaps have played this way, and now 30 ♖e1 holding on.

28...♖c8!

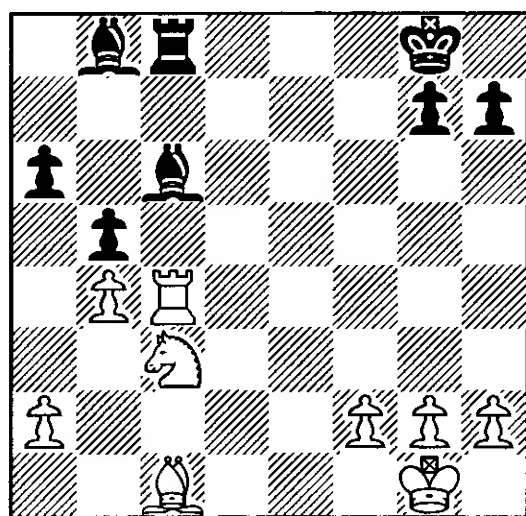
Threatening to win the exchange, or even a whole rook.

29 ♖g1

29 ♘d5 loses to 29...♖b5 30 ♘e7+ ♖f7 31 ♘xc8 ♖xc4+ 32 ♖e1 ♖xa2 and the endgame is hopeless.

29...b5

White has been under pressure for some time. Now he blunders the exchange and loses the game without much further resistance.



30 ♖d4?

If 30 ♖g4? ♕d7! wins. 30 ♖h4 was the only move, but after 30...♕d7 31 ♕d2 ♕e5 followed by 32...♖c2 Black is very close to a winning ending all the same.

30...♕e5! 31 ♕e3

31 ♖d3 ♕e4! was the point behind the last move – not a difficult tactic, but sometimes it is hard to see what the opponent is threatening.

31...♕xd4 32 ♕xd4 ♖d8 33 ♕e5 ♖d2 34 f3 ♖b2 35 ♕d6 ♖c2 36 ♕e5 a5! 0-1

Both this game and the next were played for big money in the last round of the most recent Aeroflot Open. However, that does not justify breaking the laws of chess, and the punishments are severe!

In the next game Lautier steps outside standard opening theory with some not very energetic moves. In so doing he violates the principle that, if you accept weaknesses in your own position, you need to have dynamic advantages to compensate for them. Vaganian plays excellently, finding original and yet sound solutions to the problems presented to him by Lautier. This game could have been placed just as well as a glorious example of when to calculate in Chapter 3. Vaganian first develops all his pieces and then exploits his slight lead in development by finding a creative tactical solution. The skill he showed in this game cannot be exaggerated.

Lautier-Vaganian

Aeroflot Open, Moscow 2004

Queen's Gambit Declined

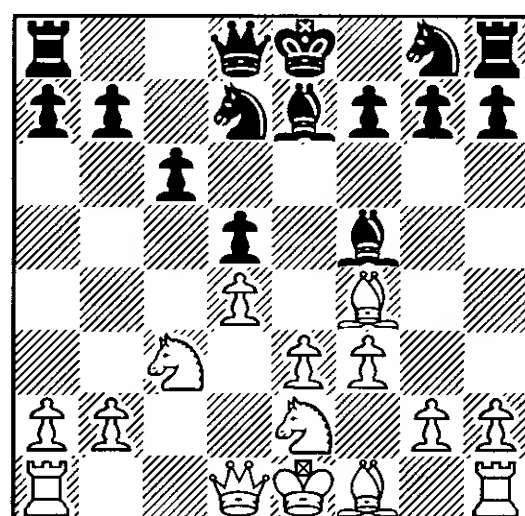
1 d4 d5 2 c4 e6 3 ♘c3 ♕e7 4 cxd5 exd5 5 ♕f4 c6 6 e3 ♕f5 7 ♘ge2

7 g4!? is the most aggressive option here. It seems that Lautier was badly prepared for his experienced opponent and his attempts at being creative come at a price: he plays less than perfect moves.

7...♘d7 8 f3?!

This creates weaknesses and has no long term advantages. Moves like this certainly need to be eliminated from Lautier's play, if he is to break the 2700-barrier and join the absolute chess elite – a stated ambition of his.

8 ♘g3!? was a possible improvement, and after 8...♕e6 9 ♘h5 ♕f8 10 ♕g3 White would have an advantage, though 8...♕g6 looks more natural. In *New in Chess*, Vaganian wrote that he intended 8 ♘g3!? ♕e6 9 ♘h5 ♕f8 when he thinks it is equal.



8...♕g6!

A strong prophylactic move which restricts White's ideas of advancing the pawns on the kingside, as well as vacating the f5-square for the g8-knight.

9 ♕g3

If 9 ♘g3 ♘f8! or 9 g4 h5 and in both cases the white pieces are not coordinated.

9...♘h6!

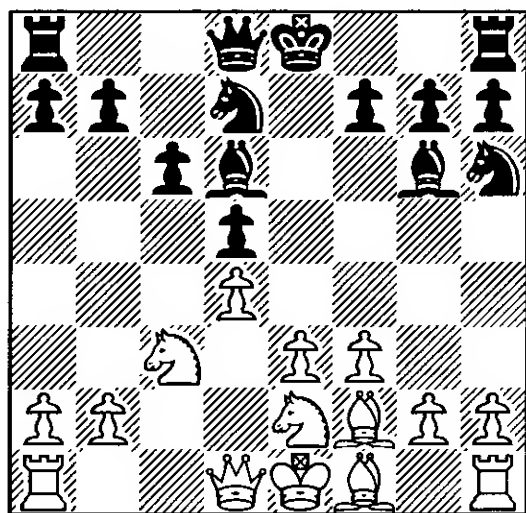
This is a creative solution to the develop-

ment of the black pieces. The knight is of course thinking about going to f5.

10 ♖f2

10 ♖f4 ♖f5 11 ♖f2 ♖d6 12 ♖xg6 hxg6 is poor, as h2 is suddenly weak.

10...♖d6!



Aimed against 11 ♖f4. Now White has no easy way to develop and this provokes him into trying a drastic solution to his problems.

11 g4?!

11 ♖g3 0-0 12 ♖d3 was better, but Black's position is easier to play.

11...f5!

Black does not hesitate to provoke White to create further weaknesses in his camp. If White had time for h4 his position would be fine.

12 h3

If 12 gxf5 ♖xf5 and Black is clearly better.

12...0-0 13 ♖g2 ♖e7 14 0-0 fxf4 15 hxg4

After 15 fxf4 ♖ae8 the weaknesses at e4 and e3 will count eventually, e.g. following ...♖h6-f7-g5 and ♖d7-f6-e4.

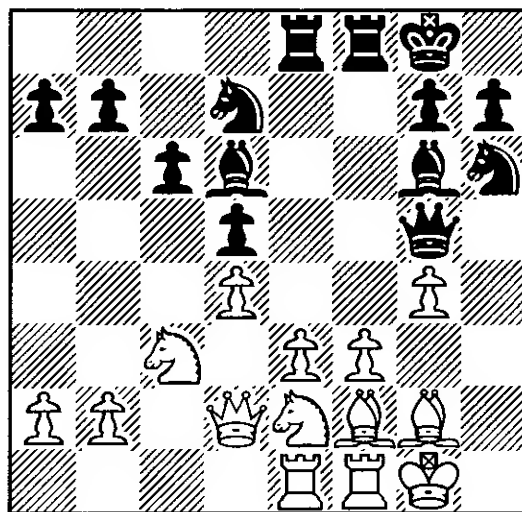
15...♖g5 16 ♖d2

White cannot free himself. If 16 e4? dxe4 17 ♖xe4 ♖xe4 18 fxe4 ♖xg4 19 ♖b3+ ♖h8 20 ♖g3 Black wins with 20...♖c5!.

16...♖ae8 17 ♖ae1

White is trying to get his pieces into the game, but Black is already ready to deliver a lethal blow. If 17 ♖f4 ♖xf4!? 18 exf4 ♖xf4 19 ♖d1 ♖f7 20 ♖e1 ♖f8 21 ♖e2 ♖h6 22

♖e7 ♖h2+ 23 ♖f1 ♖d3+ 24 ♖e2 ♖f6 and Black has a lethal attack against the poor white king.



Time to act!

17...♖xf3!

With all his pieces ready, Black has no serious alternative to beginning the attack. The exchange sacrifice is thematic: by ruining the white structure Black is able to use all the remaining pieces, which are all well placed.

18 ♖xf3 ♖xg4 19 ♖g3?!

It seems that White was forced into the very uncomfortable 19 ♖xg4 ♖xg4+ 20 ♖g3 (20 ♖g3?! gives Black extra possibilities such as 20...♖h3! to strengthen the attack) 20...♖xg3 21 ♖xg3 ♖xg3+ 22 ♖g2 ♖xg2+ (22...♖xe3 23 ♖xg3 ♖xg3+ 24 ♖h1 is also possible, but then White would have some counterplay with ♖e7) 23 ♖xg2 ♖f6 and Black has a better endgame, though White can still fight.

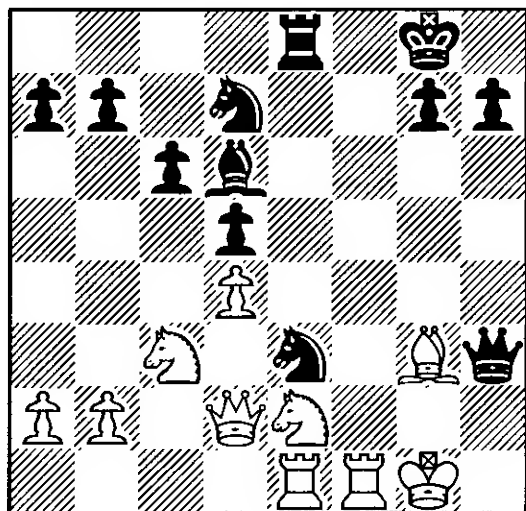
19...♖xe3 20 ♖h1

The endgame after 20 ♖g2 ♖xg3 21 ♖xg3 ♖xg3 22 ♖f3 ♖xg2+ 23 ♖xg2 ♖xg2 24 ♖xe8+ ♖xe8 25 ♖xg2 gives White no serious chances. But now another piece is introduced into the attack.

20...♖h5! 21 ♖xh5

White has no hope of survival in the endgame after 21 ♖f4 ♖xf1 22 ♖xf1 ♖xg3 23 ♖xh5 ♖h3+ 24 ♖g1 ♖e5!! 25 ♖d1 ♖c4 26 ♖g2 ♖xg2+ 27 ♖xg2 ♖e3+ etc.

21...♖xh5+ 22 ♔g1 ♖h3!



The double threat to g2 and g3 is decisive.

23 ♜f2

If 23 ♖xe3 ♜xe3 24 ♙xd6 ♖g4+ 25 ♔h1 ♜h3+ 26 ♙h2 ♖h4 and Black wins.

23...♙xg3 24 ♜xg3 ♖xg3+ 25 ♜g2

Or 25 ♔h1 ♜e6 26 ♜h2 ♖f3+ 27 ♜g2 ♜xg2 28 ♜xe6 ♜f4+ wins.

25...♜xg2 26 ♜xe8+ ♔f7 27 ♜c8 ♜e3+ 28 ♔h1 ♜f6 0-1

There is no defence against 29...♜fg4.

Creativity as a way of life

The division between being creative and being in conflict with the basic laws of chess is really a thin red line. Some players like to go there from time to time. Others live there, thinking that if they can create something truly inventive and different, they will be better prepared for it than their opponents.

The following game is yet again from Aeroflot Open, where the boy wonder Magnus Carlsen slays a former participant in the world championship Candidates.

M.Carlsen-Dolmatov

Aeroflot Open, Moscow 2004

Dutch Defence

1 ♜f3 f5 2 d3!?

Carlsen is very well prepared for his games, so when I heard he had won against Dolmatov in 19 moves, I was sure that it was

a matter of opening preparation. However, it should be clear from going through the game that this was not the case. The idea of 2 d3!? in this position was recently mentioned in the book *SOS – Opening Surprises* by Jeroen Boensch, but how well acquainted Carlsen was with this is hard to guess.

The point here is that Carlsen first plays something creative but sound, and then simply plays his own game, something he does better than Dolmatov in this game.

2...d6

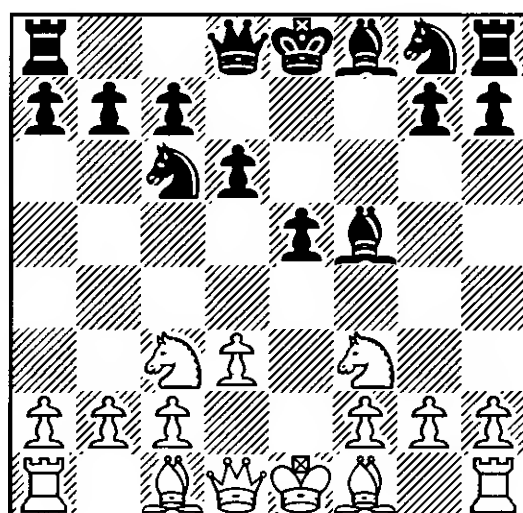
2...♜f6 would allow 3 e4!? fxe4 4 dxe4 ♜xe4 5 ♙d3 ♜f6 with a reversed From's Gambit a tempo up for White. How dangerous this is is hard to say, but Black certainly played a good move in the game.

3 e4 e5 4 ♜c3 ♜c6?!

I really dislike this move, and in the game Black gets into trouble. The most natural move is 4...♜f6! to keep control over e4. Now White correctly seizes the initiative and exploits the weakening of the black kingside provided by the first move.

5 exf5 ♙xf5

5...♜f6 would be no better as White has the advantage after 6 d4!.



6 d4!

After this central thrust I have not managed to find anything resembling equality for Black.

6...♜xd4

There is nothing better. After 6...♜f6 7

♙b5! e4 8 d5 a6 9 ♘d4 axb5 10 ♘xf5 ♘e7 11 ♘g3 Black suffers from the weak light squares on his kingside and problems concerning the development of ♙f8.

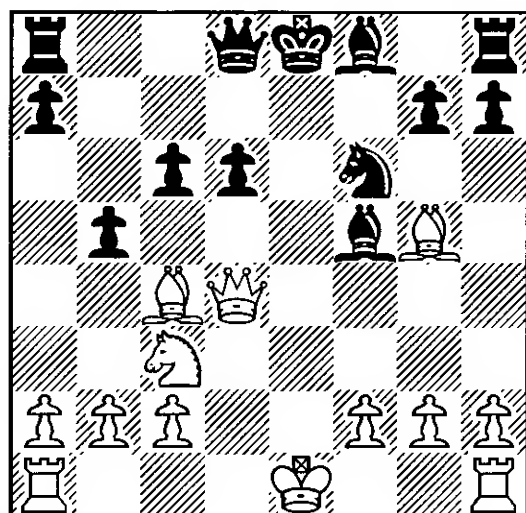
Even worse is 6...e4, when White needs to find 7 d5! exf3 8 dxc6 fxg2 9 ♙xc2 b6 10 0-0 with a wonderful position. The lead in development combined with the open centre may very well seal Black's fate.

7 ♘xd4 exd4 8 ♖xd4 ♘f6 9 ♙c4 c6

Black no doubt hoped to be able to play ...d5, and he needs to do so in order to get the king out of harms way. As this turns out to be too slow, his position must be considered as close to lost already.

Most experienced players would disregard a move like 9...♙xc2 on general grounds. But sometimes it is nice to analyse it, to refresh and test our intuition, as well as to present evidence for less experienced players. White gains a very strong attack with 10 0-0 c6 11 ♖e1+ ♙e7 12 ♙g5 ♙g6 13 ♖e3 (there may be other ways, but this seems the most logical to me: all White's pieces are introduced to the black king) 13...♙d7 14 ♖ae1 ♖e8 15 ♙f4 ♙c8 16 ♙e6+ ♙c7 17 ♖c5! (threatening ♘b5+) 17...b6 (if 17...a6 18 ♘a4! and Black is lost) 18 ♖c4! and it is very difficult to believe that Black will hold on for long. The weakness of the light squares has been transferred to the queenside along with the black king.

10 ♙g5 b5!?



It is hard to understand why a grandmaster would play such a move, as it seems that after the bishop retreats, Black will just have weakened his position. But when we see serious people making seemingly unserious moves, we need to ask ourselves why they do so, in order to fully understand the game in front of us. Here Black wants simply to survive the opening and castle queenside, but after ...0-0-0 the a-pawn would be hanging. Therefore he tries to win a tempo now when White cannot ignore the threat to the bishop.

Anyway, after 10...d5 11 0-0-0 ♙e7 12 ♖he1 Black has an equally slim chance of survival, due to 12...0-0 13 ♖e5.

11 ♙b3 ♙e7 12 0-0-0

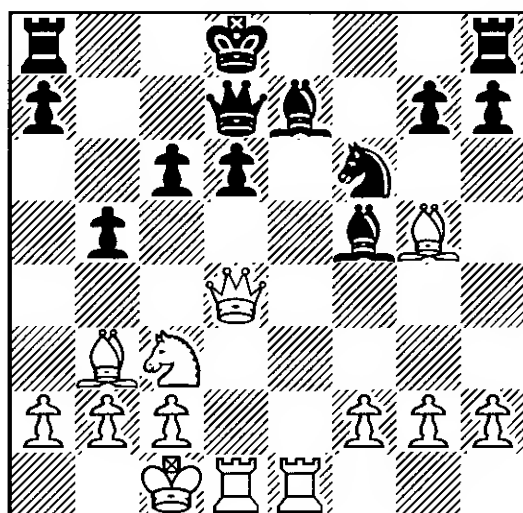
This position is all about swift development. The main reason for White to castle queenside instead of kingside is simply that he gets a rook to the open file more quickly. Black is one move too late to castle.

12...♖d7

Black cannot escape. After 12...h6 13 ♙xf6 ♙xf6 14 ♖he1+ ♙f8 15 ♖xd6+ ♖xd6 16 ♖xd6 ♖c8 17 ♙e6 ♙xe6 18 ♖exe6 the endgame holds no chances for him.

13 ♖he1 ♙d8

This move looks silly, but Dolmatov was probably saddened by prospect of 13...0-0-0 14 g4! (14 ♖f4 ♙f8 15 ♙xf6 gxf6 16 ♘e4 ♙xe4 17 ♖xe4 d5 is less clear) 14...♙xg4 15 ♖xe7 ♖xe7 16 ♖xg4+ and Black is near to losing. Now the game takes a similar turn.



14 ♖xe7!

The annihilation of the defence on the dark squares is obvious in this position where the pawns mainly cover the light squares. Now White can do as he pleases. One instructive point is that the individual value of the pieces does not matter much here, as we will not face an endgame. And no piece on the board, no matter how powerful, can attack a square more than once. In the attack, where battle is often confined to a limited number of squares, the main thing is to have as many pieces participating as possible. Therefore is hard to consider the exchange sacrifice as a real sacrifice. It is too basic.

14... ♖xe7 15 ♖f4 ♕d7

Necessary otherwise 16 ♖xd6+ decides.

16 ♘e4 d5

The natural 16... ♖f8 loses to 17 ♘xd6 h6 18 ♖b4 a5 19 ♖c5 ♖b8 20 ♖a7 and the knight's dominance becomes clear.

17 ♘xf6 h6 18 ♕h4 g5

If 18... ♖f8 White replies 19 ♘xd5! and wins.

19 ♖d4! 1-0

Indicating a threat to the rook on h8. Black had had enough.

A player who seemed to have been divinely inspired in his younger years is the Swedish grandmaster and idealist Tiger Hillarp Persson. His games have always impressed me by the enormous amount of original thought he presents in them. Lately he has strengthened the positional aspects of his game and now plays technical chess just as often as creative chess. This way of broadening his style is no doubt good for his chess and, in the future, he will be able to bridge between sound positional decisions and imagination.

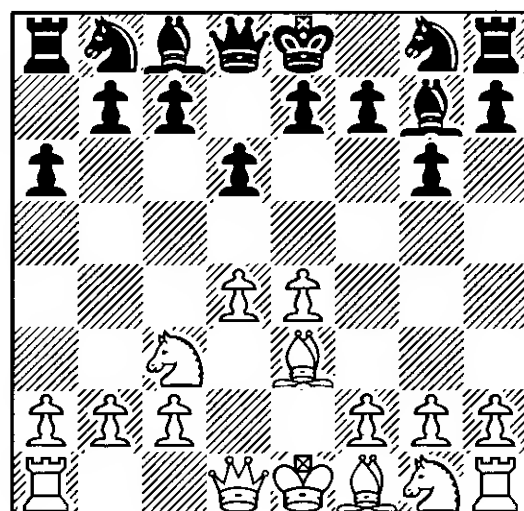
When it was played the following game was very precious to me, as an example of anything being possible in chess. It was the kind of chess I wanted to be able to play myself.

I.Sokolov-Hillarp Persson

Køge 1997

Modern Defence

1 d4 g6 2 e4 ♕g7 3 ♘c3 d6 4 ♕e3 a6!?



This system is considered somewhat off-beat even though it has been played by such players as Lautier, Radjabov, Inarkiev, Khalifman, Gurevich, Bacrot, Piket, Azmaiparashvili, Svidler and so on. There is no particular reason why it should be bad, though it is hard to imagine that Black can achieve equality in the theoretical sense of the word. But on the other hand – he is not looking for it! Instead he wishes for a game based on individual ability and creativity, rather than defend a theoretical line all the way to a draw. For this reason this system is good to play for a win, and for exactly this it has been very useful to Hillarp Persson.

As regards the correctness of the system: in games between the 200 highest rated players (who have played this position) in my database, the score is about 56-44% in White's favour, which is very close to the 55/45 average for any opening. Such statistics are of course always rather superficial, as they can indicate a lot of things and at the same time say very little about the position. A modern hazard is how many of the games were played by youngsters with artificially boosted ratings on the Internet.

5 ♖d2 ♘d7 6 h4!?

This is not the standard way of proceeding here, but Sokolov was probably thinking that if Black could be creative, why not him too?

6...h5 7 ♖h3

The idea behind the last move was to locate the knight permanently on g5.

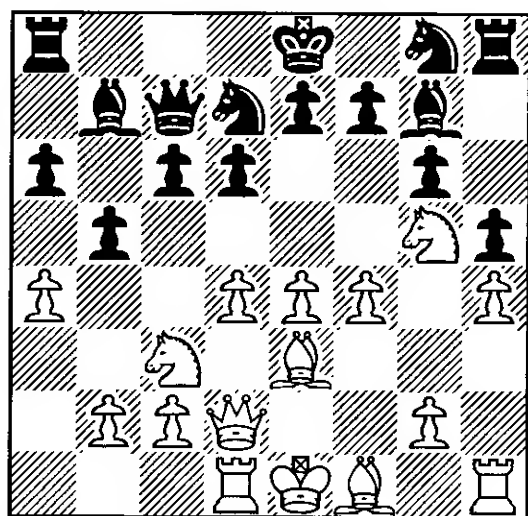
7...b5 8 ♖g5 ♙b7 9 a4 c6!

Tiger has a lot of experience with this system and correctly avoids 9...b4?! 10 ♙c4! e6 11 ♖e2 when White has managed to benefit from his recent development.

10 ♜d1

This may just be a waste of time.

10...♙c7 11 f4!?



This is a very aggressive decision which has good sides and bad sides. On the good side it allows the f1-bishop to find a good square on f3. On the bad side it clearly weakens the control over the light squares in the centre, which could have been maintained by playing f2-f3 at some point. Tiger immediately realises the downside to his opponent's last move and uses it to his advantage.

11...♖h6!?

From here the knight can go to both g4 and f5 and, more importantly, it allows the d7-knight to come to f6 and g4. However, because of White's option on the next move, 11...♖df6!? seems a better way to execute the idea. Then White has nothing special after 12 e5 ♖g4 13 e6 f5 and, as it can be very hard to find targets in the black position, he should consider forcing a draw immediately

by 14 ♖f7 ♜h7 15 ♖g5 ♜h8, though he might hope to exploit the fact that Black can now no longer castle, but will have to play slowly with ...d6-d5, ...♖g8-f6-e4, ...♙f6-g7 and ♙e8-f8-g7 before he can get his rook into the game.

12 ♙e2?!

Usually in these kind of positions it is useful to restrict the black knights as much as possible, which could have been done here with the stronger 12 e5!. The main threat is to play e5-e6 to weaken the light squares, while after 12...e6 (which seemingly grants Black has good play – since White has given both f5 and d5 away with his last move and his bishop on e3 is out of play), White can strike immediately with 13 axb5 axb5 14 ♙xb5! and it looks as if White is better, although the position is still hugely complicated.

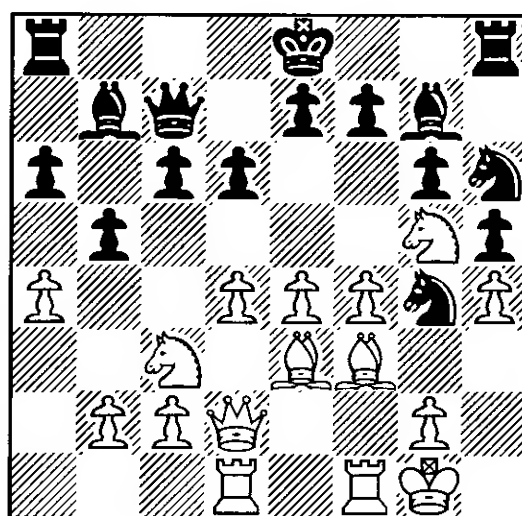
12...♖f6!

Now Black has no problems.

13 ♙f3

Here 13 e5 ♖fg4 14 e6 f6 15 ♖f3 ♙c8 would only be good for Black.

13...♖fg4 14 0-0

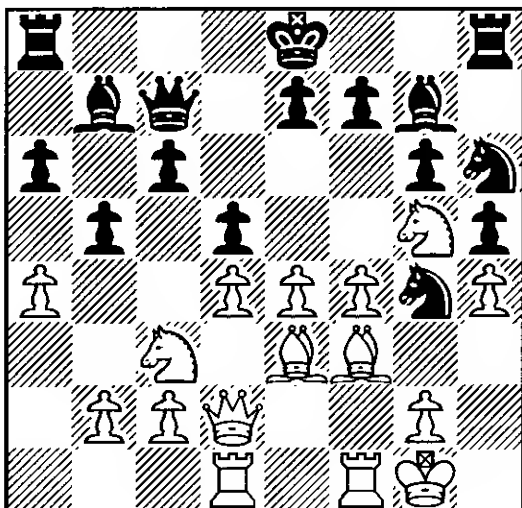


Time for Black to be really creative!

Here the standard move would be to castle short and then celebrate a decent outcome from the opening. But Tiger had a deep think and identified the reality of the position: both black knights are aiming for the same square (g4), so with his next move Tiger opens up

for the h6-knight and a general onslaught on the dark squares.

14...d5!!



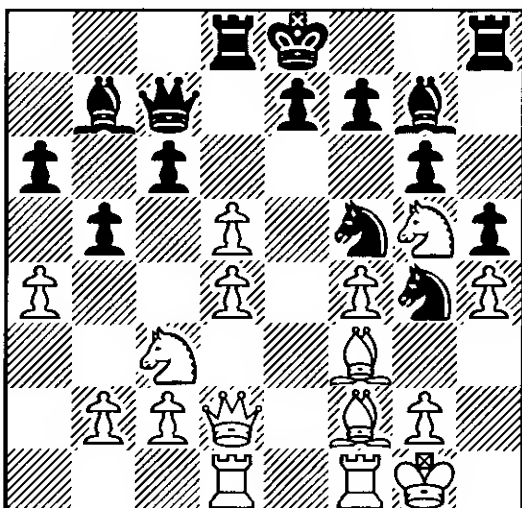
With this pawn sacrifice (and the coming further sacrifices) Black manages to open the position and bring his pieces to life. This is the idea behind being creative: the position is thrown off balance, and dynamic advantages outbalance static advantages. The resulting position becomes hard to evaluate, even in analysis after the game. Mikhail Tal was very famous for this kind of chess.

15 exd5 ♖f5

This was the idea.

16 ♙f2 ♜d8

Black continues being violently active, though this is no longer a surprise. Black carries out his plan and then both players have to make their choices. Here White has the first real choice.



17 dxc6

It is hard for White to decline the challenge. If 17 axb5 cxb5 followed by ...b4 and Black wins his pawn back with good play.

An interesting and possibly better move was 17 ♙e4!? when the position remains very complicated. As all the action is on the dark squares, it makes sense for White at least to retain the possibility of exchanging the f5-knight rather than the g4-knight (which would open the h-file for the rook after ...hxg4). Now Black should probably play 17...b4 18 ♖a2 a5! with complications, as after 17...cxd5 18 ♙xf5 gxf5 19 axb5 axb5 20 ♖xb5 ♜b6 21 ♖c3 he might risk ending up worse.

17...♜xd4!

Of course Black had foreseen this move long ago, and it was no secret to White either. Strong players have few problems foreseeing exchange sacrifices since nothing is taboo to them.

18 ♖d5!

The strongest reaction, but still a move which was easy to overlook if you do not have the awareness of the different possibilities in this kind of muddy position.

Instead 18 ♜e2? ♖xf2 19 ♖xb5!? (after 19 ♜xf2 ♙xc6 Black is just better – Hillarp Persson) 19...axb5 20 cxb7 0-0 21 ♜xf2 ♜xf4 looks very dangerous for White, while 18 ♙xd4? ♙xd4+ wins the queen due to 19 ♙h1? ♖g3 mate.

18...♜xc6 19 ♜a5

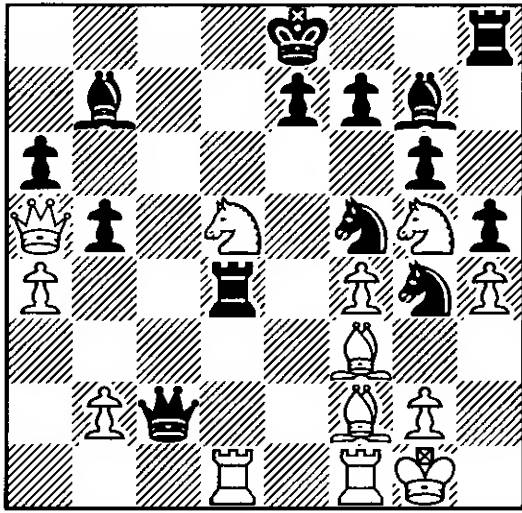
The only good square for the queen. Now ♖c7+ is threatened and Black cannot castle because of ♖xe7+. Hillarp Persson comes up with a wonderful queen sacrifice.

19...♜d6!!

Black would be ill-advised to hand over the initiative to White with 19...♜xc2?.

(see following diagram)

First let's analyse a standard candidate and see if it works.



Calculation Exercise! White to play.

a) 20 ♖c1?! ♜xb2 (20...♜d2 21 ♘c7+ ♔f8 22 ♜xd2 ♜xd2 23 ♙xb7 ♘d6 24 ♙e1 ♜xb2 25 ♙xa6 bxa4 is only somewhat worse for White, but why involve himself in something this dodgy?) 21 ♘c7+ ♔f8 and now we have:

a1) 22 ♘ce6+ fxe6 23 ♙xb7 ♙f6 24 ♜c8+ ♔g7 25 ♘xe6+ ♔f7 26 ♘d8+ ♜hxd8 27 ♜xd8 ♘xf2 28 ♜xf2 ♜c1+ 29 ♔h2 ♜xf4 with a winning attack.

a2) 22 ♙xb7 ♙f6 23 ♜xa6 ♘xf2 24 ♜xb5 ♜xb5 25 ♘xb5 ♘g4 26 ♜c8+ ♔g7 with a clear advantage to Black.

a3) 22 ♘xb5 ♙f6! (not 22...axb5?? 23 ♜a8+!! ♙xa8 24 ♜c8+ and mates) 23 ♘xd4 ♙xd4 24 ♜d8+ ♔g7 25 ♘e6+ fxe6 26 ♙xd4+ ♜xd4+ 27 ♜xd4+ ♘xd4 28 ♙xb7 ♘e2+ 29 ♔h1 ♘xc1 30 ♜xc1 a5 with a better endgame for Black.

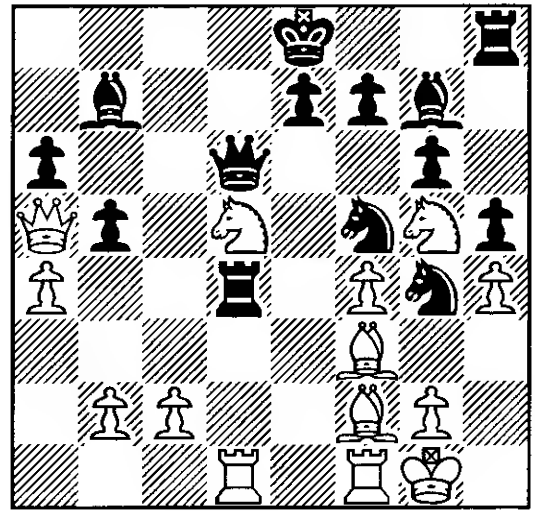
The right move is also the most tempting one:

b) 20 ♘c7+! (White needs to bring the black king into the middle, so intuitively this is the best decision, but in such a complex position you also have to back it up with variations) 20...♔d7 (20...♔f8 loses instantly to a very nice mate: 21 ♘ce6+!! fxe6 22 ♜d8+ etc.) and now White has two ways to win the game:

b1) 21 ♘xa6 (the complicated way to do it) 21...♙xf3 (21...♘xf2 loses to 22 ♜c1! ♜xb2 23 ♜c7+ ♔e8 24 ♙c6+ ♙xc6 25

♜xc6+ ♜d7 26 ♘c7+ ♔f8 27 ♜a8+) 22 ♜c1! ♜xa4 23 ♜xb5+ ♙c6 24 ♘c5+ ♔c7 25 ♘ce6+!! ♔d6 26 ♜b6 and Black is toast.

b2) 21 ♜c1 ♜d2 (or 21...♜xa4) 22 ♜b6! ♙xf3 23 ♘d5 with a winning attack.



Where do we go from here?

20 ♘e4?

White accepts the queen sacrifice, probably because he was unable to find his way in all the tactics. It is very likely that he overlooked the difference the knight sacrifice would make in all the main lines, simply because he never thought in that direction. This is another example of how it is possible to end up in a position where only very non-standard moves are playable, and where we need to open our minds to a completely different way of understanding chess.

Here 20 ♘c7+! was much stronger, when Black has only one playable move.

a) 20...♔d7? is foolhardy after 21 ♘xb5! (the key move in all lines; not 21 ♘xf7?? ♜xf4! and Black wins) 21...axb5 22 ♘xf7 and White wins. The difference can be seen after 22...♜xf4 23 ♜xb5+ ♔e6 24 ♘g5+ ♔f6 25 ♙xd4+ ♘xd4 26 ♙xb7 and so on.

b) 20...♔f8 21 ♘xb5!! axb5 22 ♙xb7 and now White has ♜a8+ which prevents 22...♜xf4, so Black can only keep his position together with 22...♜b8! 23 c3 (if 23 ♙xd4 ♙xd4+ 24 ♜xd4 ♘xd4 25 ♔h1 ♘e2 26 ♜e1 ♜xb7 27 ♜xe2 bxa4 and Black is

not worse, while 25 ♖f3 ♜xf3+ 26 gxf3 ♜f6 gives good counterplay against f4 and h4) 23...♜xf2 24 ♖xd4 ♖xd4 25 cxd4 ♜g4 and the position is still very difficult to assess. Probably it is balanced in some weird way.

Instead 20 ♖xd4 ♖xd4+ 21 ♖xd4 ♜xd4 would have been preferable to Black. One main point is that after the greedy 22 ♜c7+? ♜f8 23 ♖xb7 White is mated by 23...♜e2+ 24 ♜h1 ♜g3+ 25 ♜g1 ♜d4+ 26 ♖f2 ♜xf2 mate.

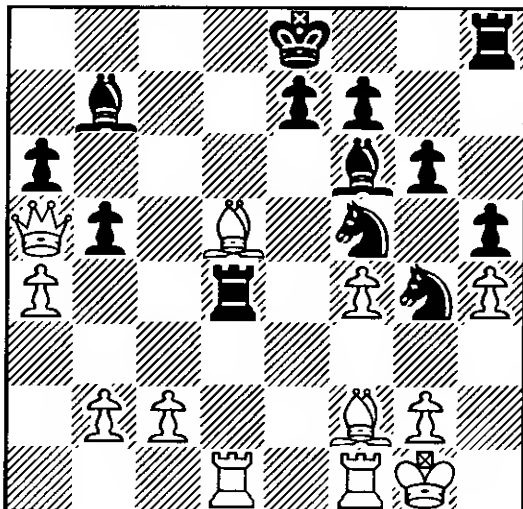
20...♜xd5

The idea behind Black's move, and really the only move in the position, so it should not be any surprise.

21 ♜f6+

Sokolov had to take an intuitive decision here. 21 ♖xd4 ♜xd4 22 ♜f6+ ♖xf6 23 ♖xd5 ♖xd5 looks very dangerous for White as well.

21...♖xf6 22 ♖xd5



*With so many options,
obviously a surprising one is best!*

22...♜xf2!

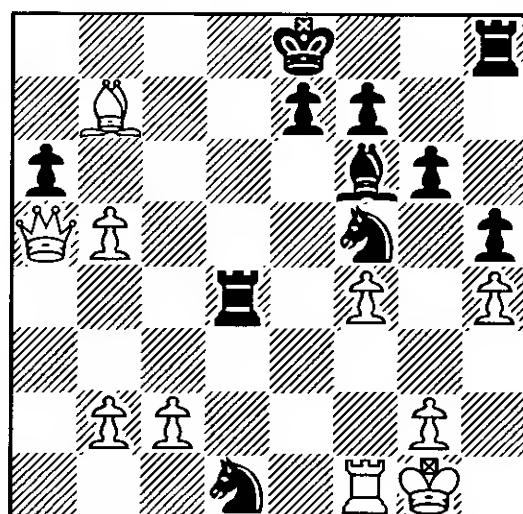
Not the most obvious move. In these kind of desperado positions it is important to look at everything, since virtually any move can prove to be the killer.

a) 22...♖xd5 is weaker because of 23 ♜c7! (23 ♖xd5 ♖xd5 24 ♜xa6 0-0 25 ♜xb5 e6 is also less clear: Black obviously has a very dangerous attack, but maybe White will be

able to create a little counterplay with his pawns) 23...♜d6 (the only move) 24 ♖xd5 ♖xd5 25 ♖d1 ♜xf2 (or 25...♖a8 26 ♖d4! with roughly even chances) 26 ♜xf2 ♖e4 27 ♖xd6! exd6 28 ♜xd6 ♖g7 29 ♜xa6 0-0 30 ♜xb5 ♖xc2 31 a5 and White has good counterplay.

b) 22...♖xd5? is just bad, since after 23 ♖xd4 ♖xd4+ 24 ♖xd4 ♜xd4 25 ♜d2! White wins (Hillarp Persson).

23 ♖xb7 ♜xd1 24 axb5



24...0-0!

Black clings on to the initiative. Whatever White is doing at the queenside does not interest him. Instead if 24...axb5? 25 ♜a8+ ♜d7 26 ♖c6+ ♜d6 27 ♜b7 and the black king is in danger (Hillarp Persson).

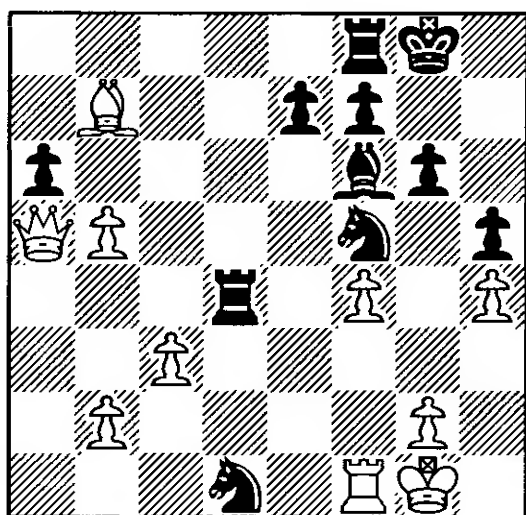
25 c3

This is given '?' by Hillarp Persson, but in fact White could no longer save the game. He was concerned about the complications after 25 bxa6, and now the Danish grandmaster Lars Bo Hansen gave some long and interesting analysis with 25...♖d7!?, which leaves White on the ropes, but still breathing:

a) 26 a7 ♖d4+ 27 ♜h2 ♖xa7 28 ♜xa7 ♜de3 and White loses by force, e.g. 29 ♖f3 (or 29 ♖e1 ♜g4+ 30 ♜g1 ♜d6 and Black has a decisive material advantage) 29...♜g4+ 30 ♜h3 (if 30 ♜g1 ♜fe3!! wins) 30...♖d1 31 g3 ♖fd8 32 ♖f2 ♖8d2 33 ♖xd2 ♖xd2 34 ♜g1 ♜fe3 35 b4 ♖d1 and Black should win the endgame pretty easily a piece up.

b) 26 c3! (preventing the black bishop from entering the game directly) 26...♞de3 27 a7 ♜xb7 28 a8♞ ♜xb2! 29 ♞f3 ♜xg2+ 30 ♞xg2 ♞xg2 31 ♞xg2 ♞e3+ 32 ♞g1 ♞xf1 33 ♞xf1 ♜c8! 34 f5! and Black will have some difficulties realising his advantage as White will have a lot of checks.

But all this analysis could have been omitted if we had simply looked after candidates to begin with. After 25 bxa6 ♞xb2! followed by 26...♜a4 Black has nothing to fear and will win without too much trouble.



What next for Black?

25...♞de3!!

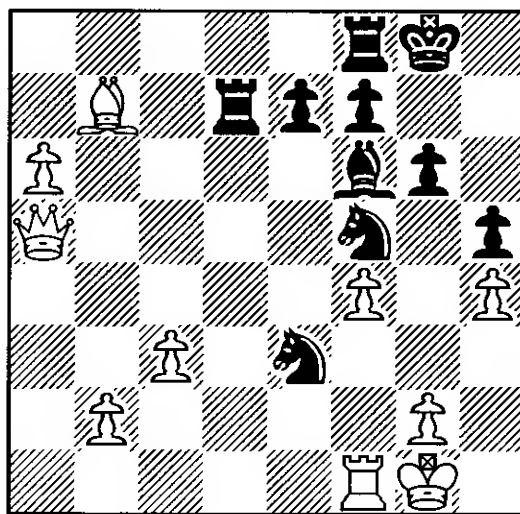
Black treats the threat to his rook as an illusion. Now the attack becomes truly irresistible.

26 bxa6

26 cxd4 ♞xd4 leaves White with a heavy material advantage... and no chance of saving the game. After 27 ♜f2 Black wins by 27...♞g4 28 ♞f1 ♞xf2 29 ♞e2 axb5 and now Black is actually a piece up. It is not really possible to see any other moves which are playable for White. The threats are simply too strong.

26...♜d7!?

This gives White some extra options, though they hardly matter. 26...♜d2 would have been more natural, but then chess is difficult and this has not been an easy game for Black to play either.

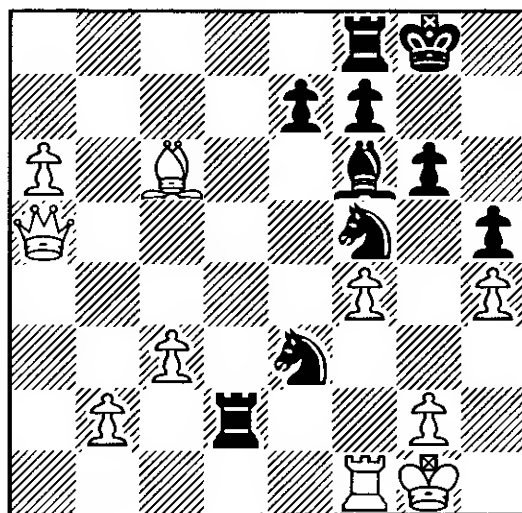


27 ♞c6?!

The best chance was 27 a7! ♜xb7 28 a8♞ ♜xb2 29 ♞f3 transposing to the 26 c3 line in the 25 bxa6 note above. Instead 27 ♞a4 loses to 27...♜d2 28 a7 ♞xh4 29 a8♞ ♞xf1 because of the brilliant tactic 30 ♞xf1 ♞f2!! and White is helpless to prevent the knight mate despite his two queens vs. rooks.

27...♜d2!

Black now plays flawlessly in the finishing phase.



28 ♜b1

28 a7 loses to 28...♞xh4! 29 a8♞ (if 29 g4 hxg4 30 a8♞ ♞g3 31 ♞g2 ♞xf1 and now Black has a winning advantage, mainly because of the 32...♞f2+! threat again) 29...♞xf1 (simplest, though Black also wins after 29...♞f2+ 30 ♞h2 ♞xf1+ 31 ♞h3 ♜xa8 32 ♞xa8+ ♞g7 or 30 ♜xf2 ♜d1+ 31 ♞h2 ♞g4+ 32 ♞h3 ♜h1 mate) 30 ♞8a7 ♞5e3 31

♙f3 ♙f2+ 32 ♙h1 ♘g3+ 33 ♙h2 ♘ef1+ 34 ♙h3 ♙xa7 35 ♚xa7 e5 and White is completely tangoed.

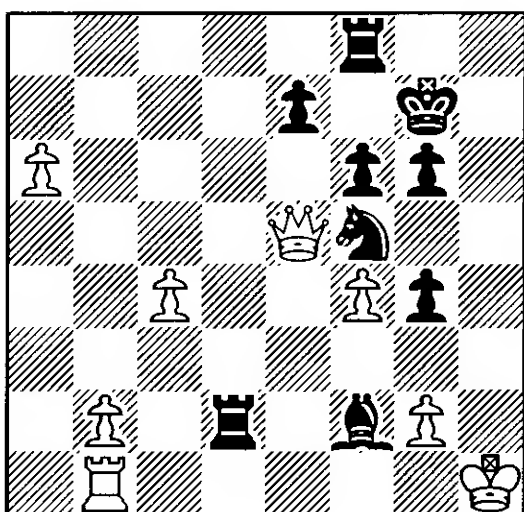
28...♙xh4 29 ♙f3 ♙f2+ 30 ♙h1 ♘g4!

Threatening mate in one and thus forcing White to open the h-file. This leads quickly to a forced win.

31 ♙xg4 hxg4 32 c4?

32 a7 loses to 32...♚dd8 33 ♚a1 ♚a8 34 ♚e5 f6 35 ♚e6+ ♙g7 36 g3 ♘e3 37 ♚xe7+ ♚f7 followed by ...♚h8+.

32...♙g7! 33 ♚e5+ f6 0-1



Combinational vision

One of the most important skills for a chess player is to be able to spot combinations when they appear on the board. As I said before, this awareness is best developed by solving lots of combinations. It is a good idea to have a book of simpler combinations for travelling on the bus or train, for the waiting room at the doctor or the dentist, or for solving in the bathtub. But you should also try solving really difficult combinations such as the following:

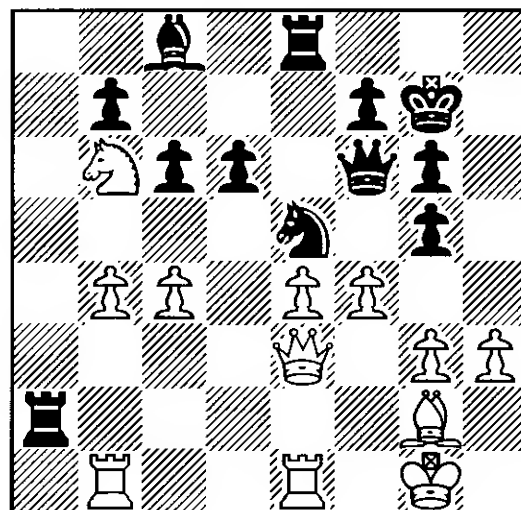
N.Kirov-Hillarp Persson

Saragossa 1995

King's Indian Defence

1 ♘f3 d6 2 d4 g6 3 g3 ♙g7 4 ♙g2 ♘f6 5 0-0 0-0 6 c4 ♘bd7 7 ♘c3 e5 8 e4 ♚e8 9 h3 exd4 10 ♘xd4 ♘c5 11 ♚e1 a5 12 ♚b1 a4 13 b4 axb3 14 axb3 h6 15 b4

♘e6 16 ♘f3 ♘d7 17 ♙b2 ♘g5 18 ♘xg5 hxg5 19 ♘d5 c6 20 ♙xg7 ♙xg7 21 ♚d4+ ♘e5 22 ♘b6 ♚f6 23 ♚e3 ♚a2 24 f4



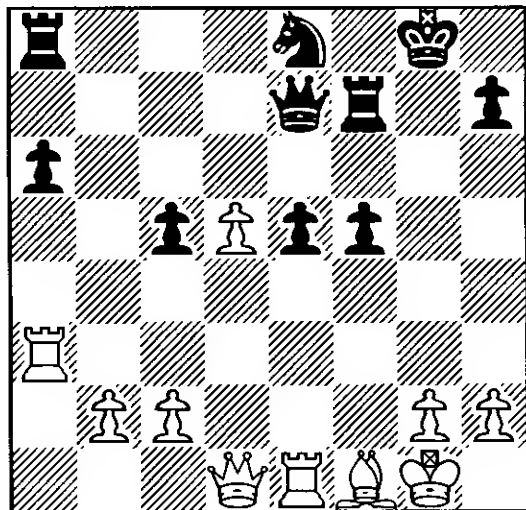
Can you solve this? Black to move!

But let us return for a moment to simpler combinations. Books like Pongo's two books on combinations, *Informator's* two books on combinations, John Nunn's *Chess Puzzle Book*, Lein and Archangelsky's *Sharpen Your Tactics*, and many others are excellent for this. The only problem with a lot of these books are that some of the combinations are incorrect as they have not been checked with a computer (the books are too old), while a lot of examples are simply copied from other combination books. Still, in 90% of the cases you do not recognise exercises even if you have solved them before, nor find mistakes in the solutions, so things are not as bad as they seems. I have tried myself to make a 'clean' book on combinations, *Excelling at Combinational Play*, and I must say that I understand why there aren't more really good books on combinations, because it does take a lot of work to collect, check, annotate and organise such a book.

Anyway... Combinatorial vision is enormously useful for the practical player. Most strong players would instantly spot the themes of the next position, and then work out the details.

Hellsten-Lopezsilva

Argentina 2004



What is White's thematic move here?

22 d6!

This is very thematic play; White sees the possible pin on the c4-g8 diagonal and pushes the pawn to open up for the bishop. Of course Black had seen this, but he had not taken all facets of the move into account. Then again, his position was not that hot anyway.

22... ♖xd6

If 22... ♖xd6 23 ♕c4 and White wins the endgame easily.

23 ♖d5 ♖d8

23... ♖e8 24 ♖xa6 ♖e4 25 ♕c4 also wins for White.

24 ♖xe5 1-0

Black resigned because of 24... ♖c7 25 ♖xc5 when he has no real chances of saving the endgame. Of course it was a bit early to resign, but Black did not feel lucky.

For a strong player like Hellsten the question is not how quickly he saw the combination, but *when* he saw it. Very likely it was several moves ago. These kind of thematic twists are second nature for the experienced tournament player.

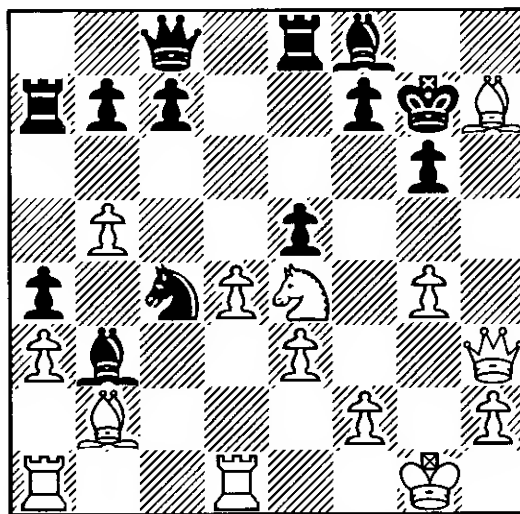
Before we examine the solution to Kirov-Hillarp Persson from above, have a look at another complicated position.

Sturua-Xu Jun

Istanbul Olympiad 2000

English Opening

1 c4 e5 2 g3 ♖f6 3 ♕g2 d5 4 cxd5
 ♘xd5 5 ♘c3 ♘b6 6 d3 ♕e7 7 ♗f3 ♗c6
 8 0-0 0-0 9 a3 ♖e8 10 b4 ♗f8 11 ♗b2
 a5 12 b5 ♗d4 13 e3 ♗xf3+ 14 ♕xf3 a4
 15 ♖c2 ♗f5 16 ♖fd1 ♖a7 17 ♕e4 ♕e6
 18 d4 ♗b3 19 ♕xh7+ ♖h8 20 ♖f5 g6
 21 ♖h3 ♖c8 22 g4 ♖g7 23 ♗e4 ♗c4



White to play!

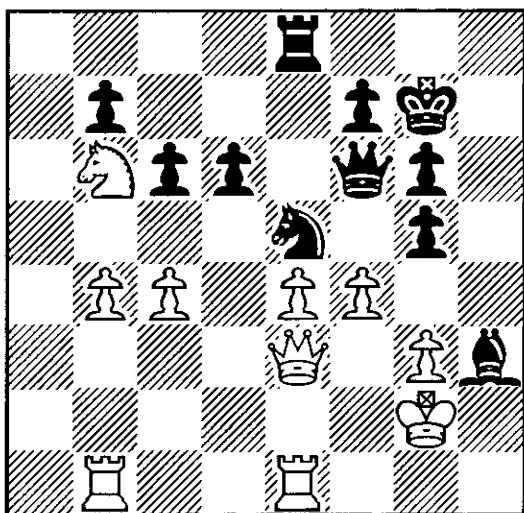
Some combinations can be called standard, and these are the ones you can find in the aforementioned books. The above combination would usually be presented under the heading *Annihilation of Defence*. The different themes can be found in the various books, including my own *Excelling at Combinational Play*, in which I wrote a small chapter about them.

In the earlier position Hillarp Persson surprised his opponent with a nice rook sacrifice:

24... ♖xg2+!!

It is hard to believe that Kirov did not consider this move, but somehow he did not make the effort to really investigate it. Had he done so, he would have spotted the follow-up.

25 ♖xg2 ♕xh3+!



A second treat!

If you calculate this move you will most likely reach the conclusion that it is very dangerous for White. For the practical player it would have been enough to calculate a few lines and realise that the attack holds only chances for Black, and then refrain from 24 f4? in favour of something cautious like 24 Re2. Now White panicked and lost at once.

26 ♖g1?! gxf4 27 gxf4

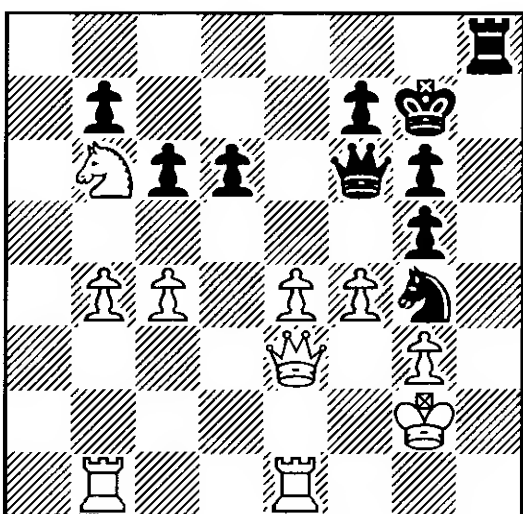
27 ♖xf4 ♘f3+ would leave Black with a good extra pawn in the endgame.

27...♖h4 0-1

The attack is lethal. White could have played on but the outcome is not in doubt.

In order to decide on the sacrifice, however, Black would have also had to calculate:

26 ♖xh3! ♖h8+ 27 ♖g2 ♘g4

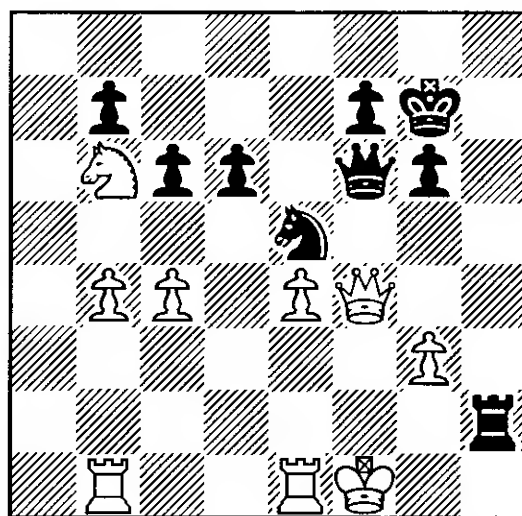


A lot of queen moves.

This is the critical position. On calculating the sacrifice you would quickly realise this was the place to stop and create your stepping-stone position. (26 ♖g1 could probably be calculated first – and quickly, since it is not too difficult to see that White is in a crisis; the exact details are not important for the decision making and could be disregarded) White now has:

a) 28 ♖a3 ♖h2+ 29 ♖f1 ♖d4 and White has no defence.

b) 28 ♖f3 ♖h2+ 29 ♖f1 ♘e5! 30 ♖e3 (if 30 ♖c3 gxf4 31 ♘d7 ♖e6 32 Re2 ♖h1+ 33 ♖f2 fxf3+ 34 ♖xg3 ♖xb1 and Black is winning) 30...gxf4 31 ♖xf4 (if 31 gxf4 ♘g4 32 ♖f3 ♖h4 or 32 ♖g3 ♖d4 wins)



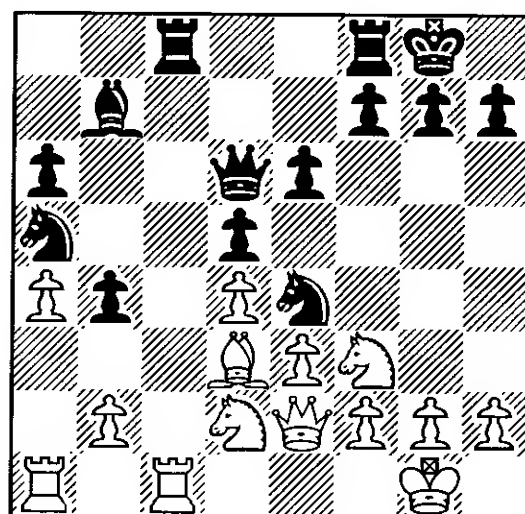
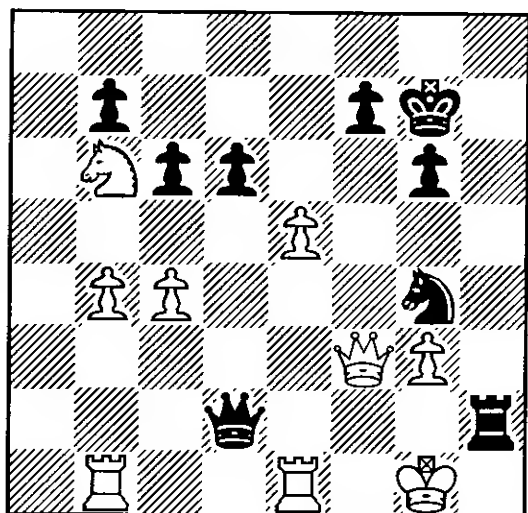
31...♖d8!! 32 ♖g1 ♖h8 33 ♘d7 ♖h1+ 34 ♖f2 ♘d3+ 35 ♖e3 ♘xf4 36 ♖xh1 ♘h5 and the endgame is very close to winning for Black, if not simply winning.

c) 28 ♖d3 ♖h2+ 29 ♖g1 and here it is actually enough to see that you have a *way out*, that is an immediate draw with 29...♖h1+ 30 ♖g2 ♖h2+. In the starting position Black has no advantage if he doesn't sacrifice so, in order to play it, all you need to know is that Black will not be worse afterwards. But once you get here, of course, you can stop and calculate the consequences of 29...gxf4!?

when White has two ways of continuing:
c1) 30 ♖f1 ♖h3 (or 30...g5 31 gxf4 gxf4 32 ♖b3 ♖g6 33 e5 ♖g5 34 ♖f3 dxe5 35 ♖xg4 ♖xg4+ 36 ♖xh2 ♖e2+ 37 ♖g1 e4 38 ♖h3 f3

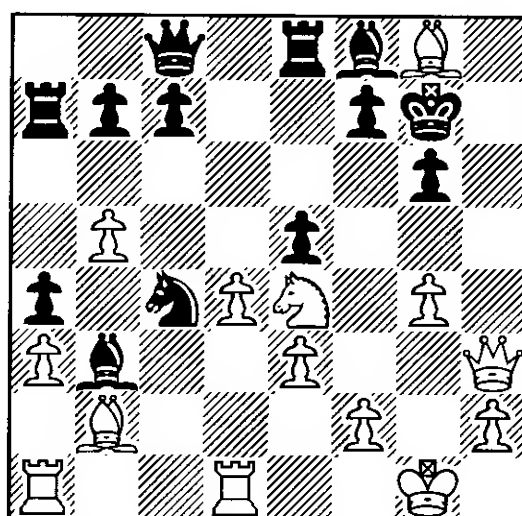
and wins) 31 ♖bd1 ♘e5 32 ♖xf4 (if 32 ♖c3 f3 wins) 32... ♖xf4 33 gxf4 ♖xd3 34 ♖xd3 ♘xd3 and Black should win the endgame.

c2) 30 e5 ♖g5! and if 31 ♖f3 ♖f2 32 ♖xg4 ♖xg4 33 ♔xf2 ♖xg3+ 34 ♔f1 dxe5 and Black has a winning endgame, while 31 ♖e4 is met by 31...f3!! 32 ♖xf3 ♖d2.



White to play. What is the most promising continuation?

Now, while you are thinking about this, we can turn to the Sturua-Xu Jun example from above. In the game the players exchanged less than accurate moves, but it is not always easy to find the true path in such a mess of variations. The fastest way to win the game was with 24 ♔g8!!



After 24... ♖xg8 25 ♘f6+ ♖g7 26 dxe5 ♘xe5 (if 26... ♖xe5 27 f4 ♔d6 28 fxe5 ♘xe5 29 ♖f1 wins) 27 f4 White is totally winning, e.g. 27... ♔d6 (or 27... ♖xf6 28 ♔xe5+ ♖xe5 29 g5+! and the black queen hangs) 28 ♘xe8+ ♖xe8 29 b6!? (29 ♖d2 is also strong, or 29 fxe5 ♔xe5 30 ♖d8 ♖xd8 31 ♔xe5+ f6 32 ♔d4 followed by 33 g5 or 33 ♖f1 with a winning attack) 29... ♖a6 30 fxe5 ♔xa3 31 ♖xa3 ♔xd1 32 e6+ f6 33 ♖d3 and wins.

White is finished; e.g. 33 ♖bd1 ♖h1+!! 34 ♖xh1 ♖f2 mate.

Black is winning in all lines, or at least is so close that, in practice, he would have won the game even against the best defence. Of course it was not necessary to see everything in order to execute the combination. Often we have to rely a lot on our intuition (which is why we work to develop it) and only calculate as much as we need to take practical decisions.

The next combination looks nice and easy, but this exercise is actually very difficult. First find the combination, then find all the variations, including the best defence!

Beliaevsky-J.Houska

Copenhagen 2003

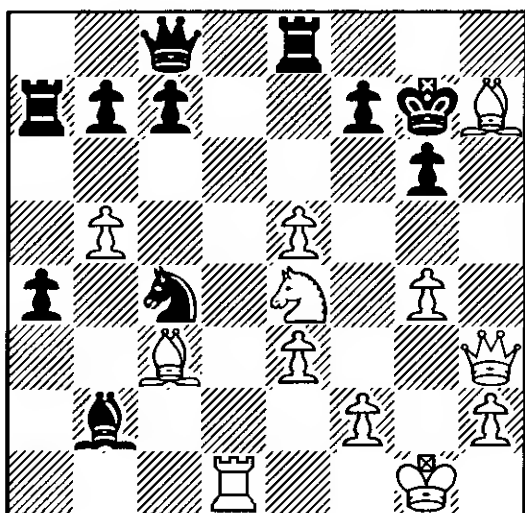
Slav Defence

1 d4 d5 2 c4 c6 3 ♘f3 ♘f6 4 ♘c3 a6 5 cxd5 cxd5 6 ♔g5 e6 7 e3 ♔e7 8 ♔d3 b5 9 0-0 ♔b7 10 ♖b3 0-0 11 ♖fc1 ♘c6 12 a4 b4 13 ♘b1 ♘e4 14 ♔xe7 ♖xe7 15 ♘bd2 ♘a5 16 ♖d1 ♖ac8 17 ♖e2 ♖d6

Not an easy combination, and in the game Sturua missed it, not once, but twice!

24 ♖c3?! ♜d6?

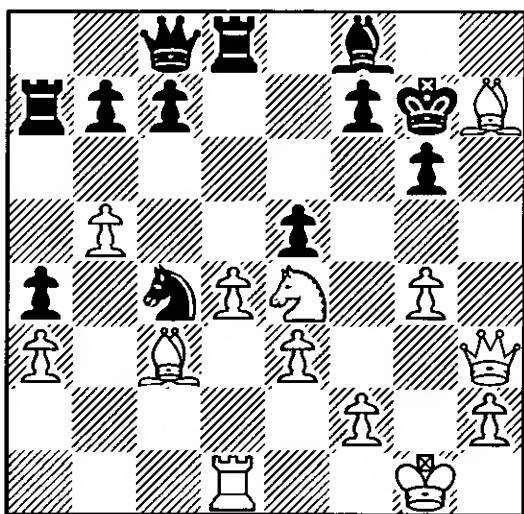
Stronger resistance is given by 24...♙xd1!? 25 ♖xd1 ♙xa3! 26 dxe5 ♙b2, trying to neutralise the terrible dark-squared bishop, when White has to play accurately in order to win.



White to play and win.

Not 27 ♖h4? ♙xc3 28 ♖f6+ ♙h6 29 ♖h4+ ♙g7 with a draw (Ftacnik), but 27 ♖d7!! and Black has no defence, e.g. 27...♖xd7 (or 27...♖e6 28 g5 ♙f8 29 ♜f6 and wins) 28 e6+ ♙xc3 29 exd7 ♖d8 30 ♜xc3 and there is no defence against 31 g5.

Ftacnik also gave 25...♖d8 (with the idea 26 ♖h4 ♙e7! 27 g5 ♙f8 28 ♙xg6 fxg6 29 ♖h8+ and a draw by perpetual check), but this does not work either because of...



White to play and win.

26 ♙xg6!! fxg6 27 ♜g5 with a winning attack, e.g. 27...♙e7 28 ♖h7+ ♙f6 29 ♜e4+ ♙e6 30 d5+ ♙d7 31 ♜f6+ ♙d6 32 ♙b4+ and so on.

25 ♜f6?

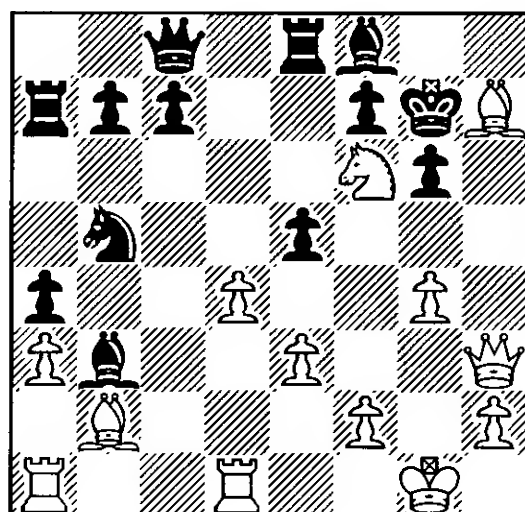
White again needed to find 25 ♙g8! which would have won fairly easily after 25...♜xe4 (or 25...♙xg8 26 ♜f6+ ♙g7 27 dxe5 wins) 26 ♖h7+ ♙f6 27 dxe5+ ♙e7 (or 27...♖xe5 28 ♖h8+ and wins) 28 ♙b4+ ♜d6 29 exd6+ cxd6 30 ♖d4 and the attack is decisive.

Reading Ftacnik's annotations it is easy to believe that the text move should also win against the best defence, but that is not the case.

25...♜xb5

Now if 26 ♙xg6 fxg6 27 ♖h7+ ♙xf6 28 dxe5+ ♖xe5 29 g5 ♙e6 and the position is quite unclear. Instead White played a quiet move.

26 ♙b2!?



What is Black's best defence here?

26...♙xf6?

Black fails to find his way in this very complicated position. The miraculous defence was 26...♙xd1! 27 dxe5 ♙xa3!! 28 ♖xa3 ♖d8 29 ♙g8 ♖e6! and White's attack seems to have been repelled. This is far from being the only variation, but I have not found any obvious way to improve the attack.

Now White wins without too much effort.

27 dxe5+ ♔e6 28 g5+ ♔e7 29 e6 fxe6
30 ♕f6+ 1-0

Chess is indeed a very difficult game, especially if the opponent plays something we had not seen. Let us now return to the Beliavsky-Houska game where White won in convincing style after

18 ♕xe4!? dxe4 19 ♖g5 h6!?

Black tries to find some kind of defence and plays on a pawn down. White's ideas were:

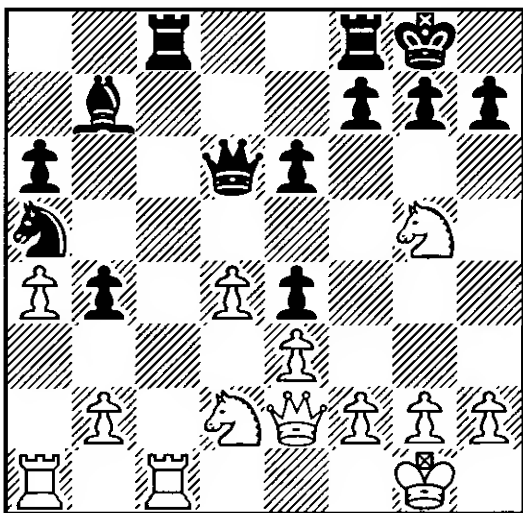
a) 19...f5 20 ♖xc8 ♕xc8 21 ♖h5 h6 22 ♖gxe4 winning a pawn.

b) 19...♖xc1+ 20 ♖xc1 f5 21 ♖h5 h6 22 ♖gxe4 ♖d5 23 ♖g6! fxe4? 24 ♖c7 and wins.

20 ♖gxe4

and White won in 58 moves with his extra pawn.

This looks pretty convincing, but actually it is less so.



Black could have saved her position with some combinational magic of her own.

19...♖d5!

This move can be thematically filed under *X-ray threats*. It is not really a combination, but it requires a good feeling for the soft spots in the opponent's position in order to see such a move. Now White has no way to gain an advantage:

a) 20 ♖gxe4?? f5! and 20 ♖dxe4?? f6! both drop a piece, because of the X-ray threat against g2.

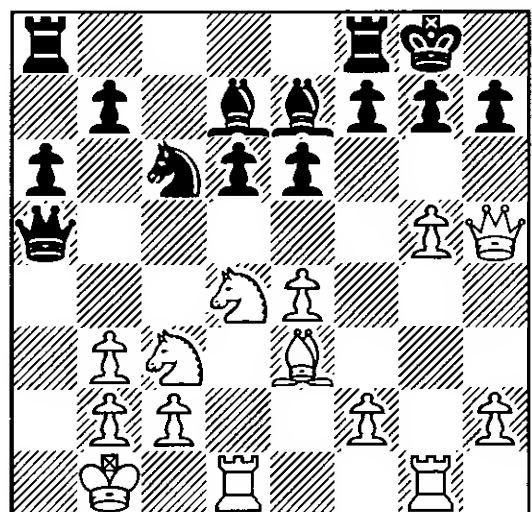
b) 20 ♖g4 ♖xc1+ 21 ♖xc1 ♖b3 22 ♖xb3 ♖xb3 and Black is not worse at all; in fact it is more likely that she is better.

c) 20 ♖xc8 ♖xc8 21 ♖h5 ♖f5 22 g4 ♖g6 23 ♖xg6 hxg6 24 ♖dxe4 f6!? (or 24...♖b3 25 ♖d1 ♕xe4 26 ♖xe4 ♖c2 27 d5 exd5 28 ♖xd5 f6 with approximate equality) 25 ♖d6 fxg5 26 ♖xc8 ♕xc8 27 ♖c1 ♕b7 and the endgame is truly complicated.

The last two examples show us that combinative vision is not just about solving combinations or finding the win in a given position, but is also a valuable asset in actual chess combat. I know that this rather long chapter has been shallow in some respects, having done little else but emphasise the importance of paying attention to tactical ideas. But actually this is a very important part of chess and I would not hesitate to write a whole book on this single topic... if I thought it would help just one player come up with something as divine as the following final example, played by the Israeli IM and study composer Yochanan Afek in a rapid tournament in 1999 against his young grandmaster countryman.

Afek-Kogan

Israel 1999



Can you see how White creates a combination out of nothing?

1 ♖d2!!

This is creative thinking. White sees the possibility for a combination and uses it to create this little masterpiece. Black now has the choice of taking the knight or not. Maybe Kogan thought White's move was a blunder, and if he believed there was a piece going for free, he should of course take it.

1... ♟xd4?

Black had to say no to White's offer:

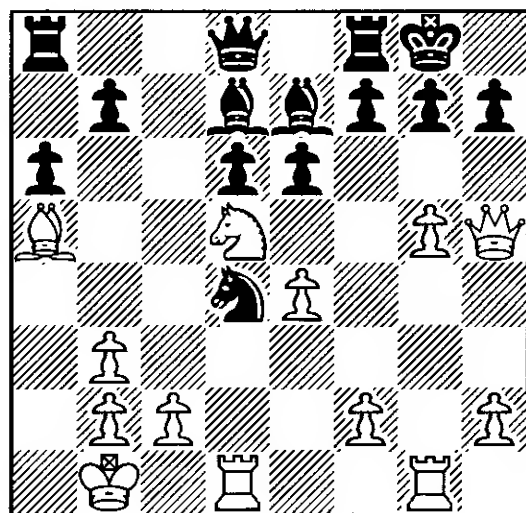
a) 1... ♞c7 2 ♜f5! exf5 3 ♜d5 ♞d8 4 ♖c3 with a strong attack. After 4... ♜e5 5 ♖xe5 dxe5 White continues with another combination: 6 ♜f6+ ♖xf6 7 ♜xd7! ♞b6! (the only move) 8 gxf6 ♞xf6 9 ♞xf5! (securing the rook on the seventh rank) 9... ♞xf5 10 exf5 ♜fd8 11 ♜gd1 ♜xd7 12 ♜xd7 ♜b8 13 ♜e7 and White has the advantage in the rook endgame. Black now has the uncomfortable choice between 13...f6 and losing the e-pawn. In both cases his chances of survival are meagre.

b) 1... ♞d8! was probably the strongest reaction, defending the key squares on the kingside and preventing all White's tricks with ♜f5 and ♜d5.

2 ♜d5 ♞d8

Objectively stronger was 2... ♞b5, but of course this is a computer move, and White still wins after 3 g6! fxg6 4 ♜xe7+ ♜f7 5 ♞xh7! with a decisive attack.

3 ♖a5!!



This is the point of White's play. Now 3... ♞e8 is met by 4 ♜f6+! and the black king cannot be defended. Therefore Black will have to lose the queen in one way or the other; in the game he allowed White to carry out his main idea.

3... ♞xa5 4 g6!

With the obvious threat of mate.

4...fxg6 5 ♜xe7+ ♜f7 6 ♞xa5 1-0

CHAPTER EIGHT

How to Train Calculation

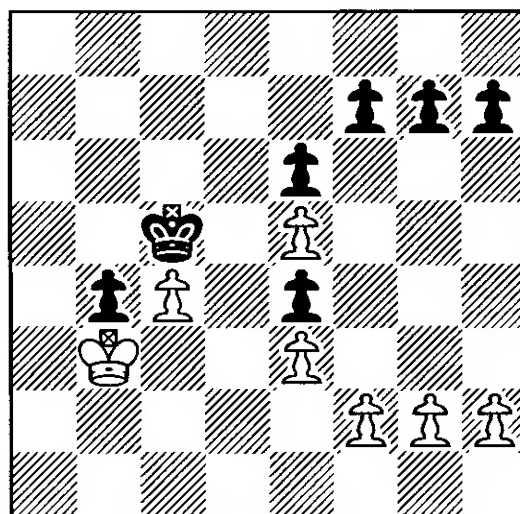
There are many ways to train our calculation and our decision making. In this chapter I will try to give a few suggestions on to how to do this most effectively. Besides ordering *Train Your Decision Making in Chess* by Aagaard & Lund, I can recommend solving exercises, both difficult and more easy. On the pages following this chapter you will find 100 exercises of different types.

The first of these is *candidate moves* or *candidates*. Until very recently there were no books on this subject, but while finishing the current book I laid my hands on Paata Gaprindashvili's *Imagination in Chess* (Batsford 2004), which works (in part) with very difficult versions of candidate move exercises and is highly recommended.

The second is combinations. I have mentioned them enough already on the previous pages and so will abstain from saying more about them here.

Thirdly, we have pawn endgames. Pawn endings are superb for training calculation, and though principally simple with few pieces on the board, they still contain high levels of complexity. The following is a good example of what pawn endgames can offer us.

Laveryd-Wikstrom
Umeå 1997



Black to play. Can you find the solution to this amazing pawn endgame?

The game concluded:

1...h6? 2 h3??

2 g4! would have won.

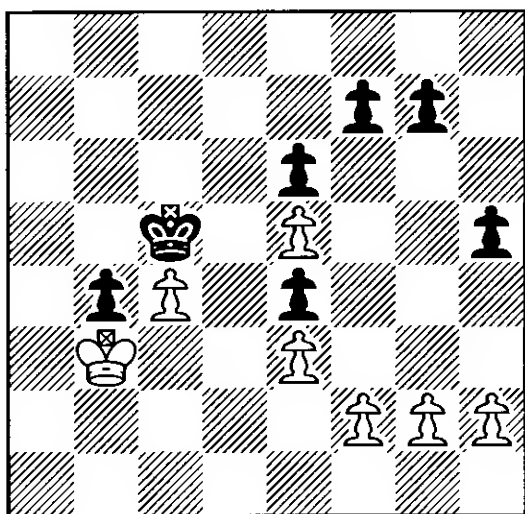
2...h5 3 h4 g5! 4 g3

If 4 hxc5 h4 and it is White who has run out of moves.

4...g4 0-1

F.Lindgren found the correct continuation and published it in *Informator*. The brilliance of the position is hard to ignore for a true chess fan.

1...h5!



This is the right move. Now White has a lot of moves, but only one that works!

- a) 2 h4? g5! and Black wins.
- b) 2 f4? exf3 3 gxf3 h4 4 h3 f5 wins.
- c) 2 g3? f5 3 exf6 gxf6 4 h3 f5 5 h4 e5 wins.

2 h3! f6!

Not 2...h4? 3 g3 g5 4 g4! and White wins.

3 h4!

Not 3 exf6? gxf6 and Black wins.

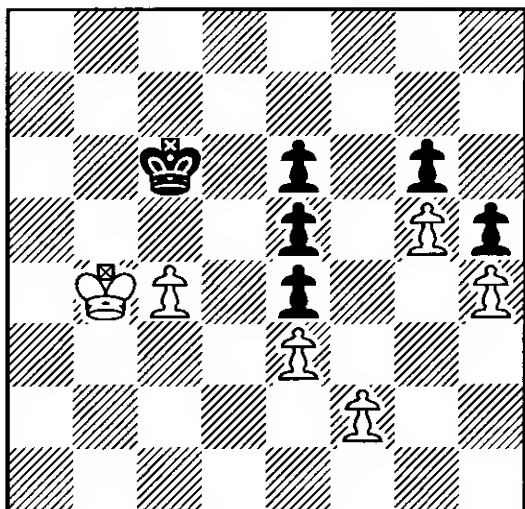
3...fxe5!

If 3...f5? 4 f4 (but not 4 f3?? f4 and Black wins) 4...exf3 5 gxf3 f4 6 exf4 g6 7 f5! gxf5 8 f4 and White wins.

4 g4! g6

Not 4...hxg4? 5 h5 and White wins.

5 g5 ♖b6!! 6 ♖xb4 ♖c6



7 c5 ♔d5!! 8 ♔b5 with a draw.

This is a very difficult pawn endgame to solve. I do not think they come much harder than this. Still, in a masterpiece of a book

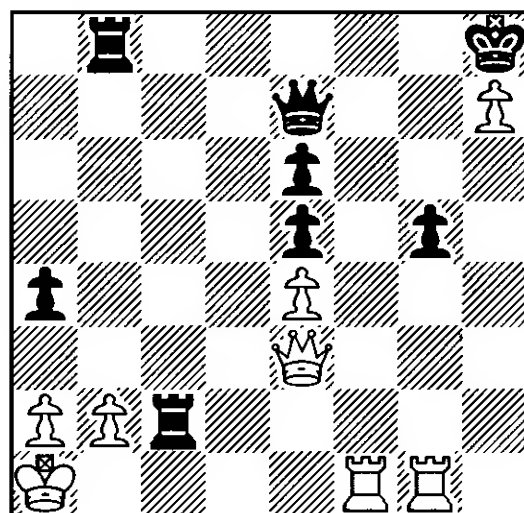
such as Lamprecht & Müller's *Secrets of Pawn Endings* you will find excellent coverage of this subject, just as you will in *Dvoretsky's Endgame Manual* which covers all endgames.

The fourth way to improve your decision making is by solving studies. These will help you to improve your calculation because there is supposed to be only one route to the goal; they will also help you to improve in thinking outside the box. I have presented a lot of studies in this book so far and do not feel that I need to present you with more to prove my point.

The fifth and last way of training your calculation is by analysing complicated positions. The method suggested by Kotov was to go through a game in a game collection by a strong player (which in these days could include *Informator*) and when the position seems to become complicated, start to calculate. Though Kotov's method is obviously beneficial, I would prefer it if there were more specific collections of this type of exercise. Mark Dvoretsky's books have quite a lot, and there is also *Analyse to Win* by Byron Jacobs, which I like quite a bit. But besides these there is not really anything on the market.

The following exercise could be included in a future such book.

Leko-Khalifman
New Delhi 2000



How should White win?

44 ♖b1? a3! 45 ♜xa3 ♜xa3 46 bxa3 ♜xb1+! 47 ♔xb1 ♜c4 48 ♜xg5 ♔xh7!

48...♜xe4 49 ♜h5 would give White very serious winning chances.

49 ♜g4?!

49 ♜xe5 ♔g6 50 ♔b2! (if 50 ♜xe6+ ♔f7 51 ♜e5 ♔f6 and white will lose his e-pawn and all chances of winning the game) 50...♔f6 51 ♔b3 ♜d4 52 ♜c5 ♜xe4 53 a4 was White's last chance to play for a win. I think Black should draw this endgame, but it is hard to be certain.

49...♔h6 50 ♔b2 ♔h5 51 ♔b3 ♜d4 52 ♜g2 ♜xe4 53 a4 ♜d4 54 a5 e4 55 a3 e5

Now it is just a draw.

56 a4 e3 57 ♜e2 ♔g4 58 ♜xe3 ♔f4 59 ♜h3 e4 60 ♜h8 ♜d6 61 ♜e8 e3 62 ♔b4 ♔f3 63 ♔b5 ♜d5+ 64 ♔b6 ♜d4 ½-½

In his analysis Leko came up with this marvellous finish:

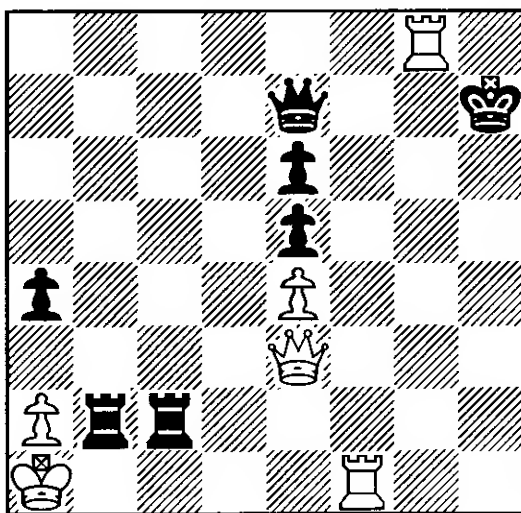
44 ♜xg5!! ♜bxb2

44...a3 45 ♜g8+ ♜xg8 46 hxg8♜+ ♔xg8 47 ♜g3+ ♜g7 48 ♜xa3 also leaves White with a winning position.

45 ♜g8+

45 ♜f8+? ♜xf8 46 ♜g8+ ♜xg8 47 hxg8♜+ ♔xg8 gives White a draw at best.

45...♔xh7



46 ♜b8!!

A fabulous resource.

46...♜xa2+

If 46...♜xb8 47 ♜h3+ ♔g7 48 ♜g1+ and White wins.

47 ♔b1 ♜h2 48 ♜f3!!

Now Black has no defence against the white attack. Not 48 ♜ff8?? ♜hb2+ and Black is OK.

48...♜ad2 49 ♜h3+ ♜xh3

If 49...♔g7 50 ♜h6+ and mates.

50 ♜xh3+ ♔g7 51 ♜h8+ ♔f7 52 ♜g8+ ♔f6 53 ♜f8+

and White wins.

There are of course other ways to train your calculation. The most important is probably to analyse your own games and those of others – not just to read other people's conclusions, but to analyse the games yourself. This book contains numerous games, some of my own and some by other players, which I have analysed myself. My recent upward progression in rating and acquisition of a GM norm is certainly not due to great talent, but because of hard work at the analysis board. This is the method of Botvinnik, who analysed almost everything and taught Kasparov to do the same. Their superiority in their own time is probably due to this method of constant work. For while you can only calculate the ideas you see, you will find it easier to see ideas if you know and understand a lot of chess. And the easiest way to acquire this knowledge and understanding is to analyse something yourself.

With those words I will now offer you some exercises.

CHAPTER NINE

Exercises

The following 100 exercises have been collected as a sort of test, from which it is possible to rate your performance at calculation. However, the main idea is to give you a good impression of how training in calculation can be performed on your own. Usually I recommend interactive training; I am working together with FM Esben Lund on a CD called *Train Your Decision Making in Chess*, to be published by ChessBase in the autumn of 2004. Interactive training gives some extra possibilities as simulation of a normal playing situation is easier to organise. But there are plenty of training exercises that can be performed alone and which have proved useful for generations of grandmasters.

The following set comprises: 20 candidate move exercises in which the task is to find one simple idea (most of these should not prove too arduous); 36 combinations of increasing difficulty; 10 pawn endings and 24 studies, again both of increasing difficulty; and finally 10 positions for in-depth calculation.

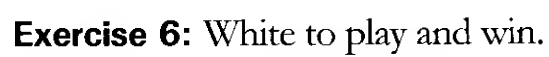
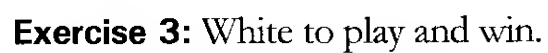
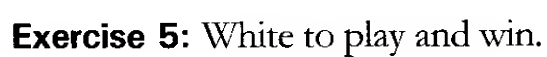
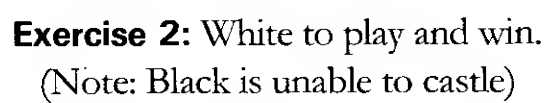
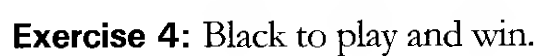
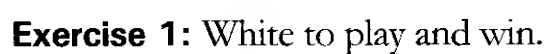
The difference between calculation training and interactive training in decision making is that in the former you have to see more. Let me make this as clear as I can. *In the following exercises you will be graded on how much you actually see. If you choose the right moves and solve the exercise, but fail to take an important*

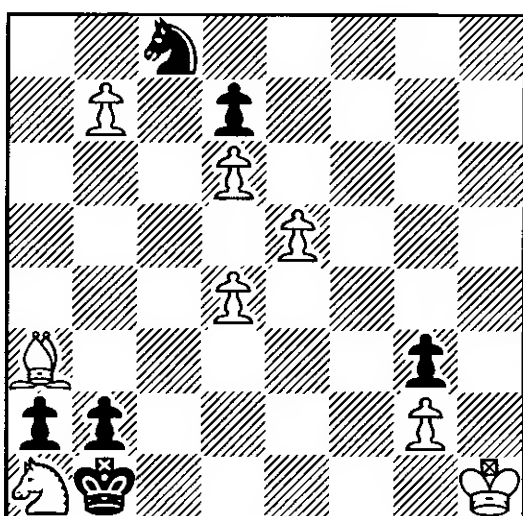
additional possibility into account, your overall performance grade will be lower. If the exercises had been interactive, you would be graded solely for making the right decisions.

Both forms of training have their advantages, but I recommend that you embrace the system presented here, because another important difference from interactive training (which just a fancy expression for playing with a clock) is that you have unlimited time. So, despite my earlier advice against indulging needlessly in calculation of complex variations, here I recommend that you forget about time for the moment. Anyway, training should be relaxing. I don't mean that you should avoid pressuring yourself, but training should be fun and not exhausting. *Training is meant to build you up not knock you down.*

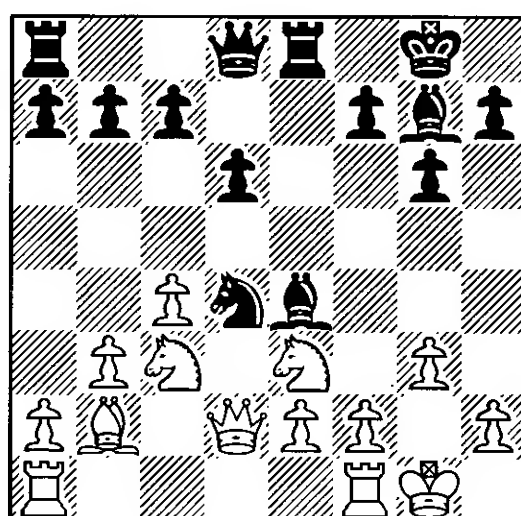
I have tried my best to reward only those variations it would be absolutely necessary to see in an actual game. I would be the first to admit that decision making is a complex process, and that there is not just one correct way – anything that works works. Nevertheless, here you will only be rewarded for seeing the important lines, as this is training in calculation and not decision making, however small the difference may be.

I hope you will enjoy the test and, most of all, that you will actually go through it!

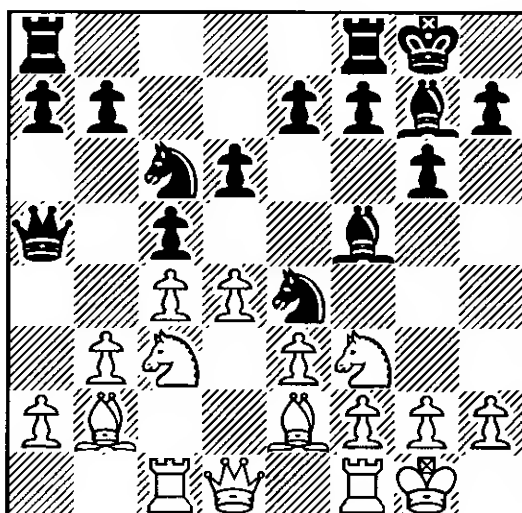




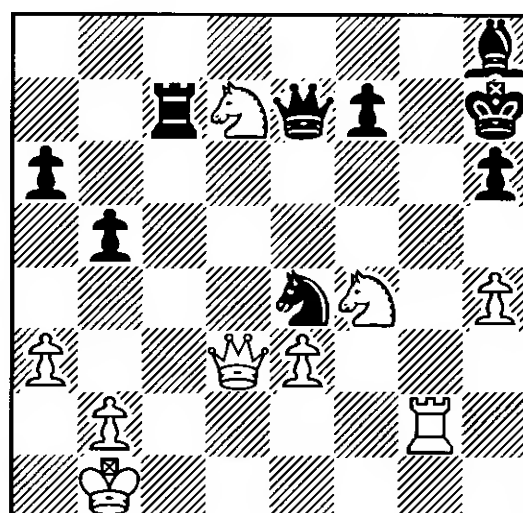
Exercise 7: Black to play and draw.



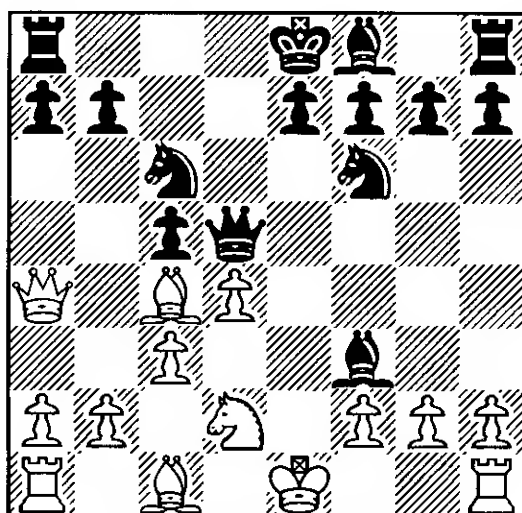
Exercise 10: Black to play and win.



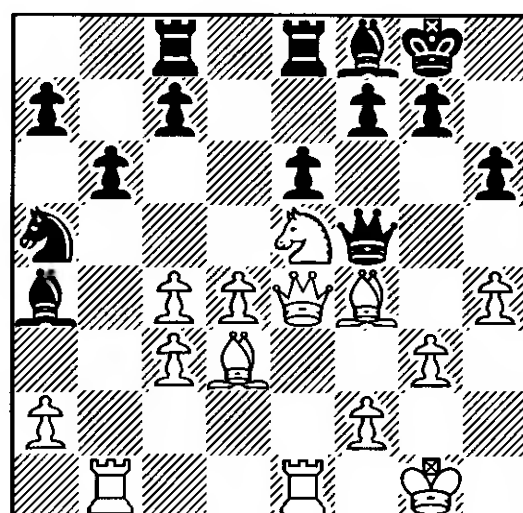
Exercise 8: White to play and win.



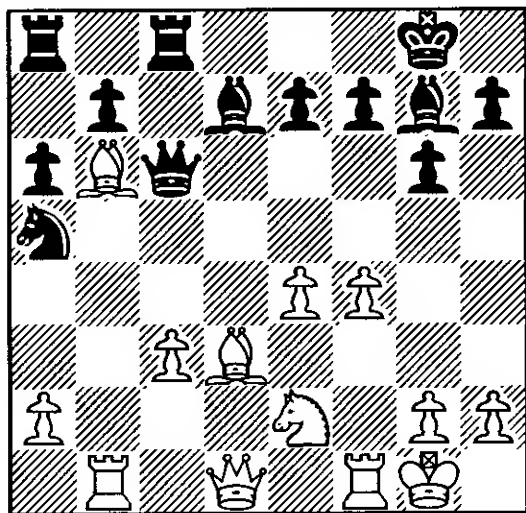
Exercise 11: White to play and win.



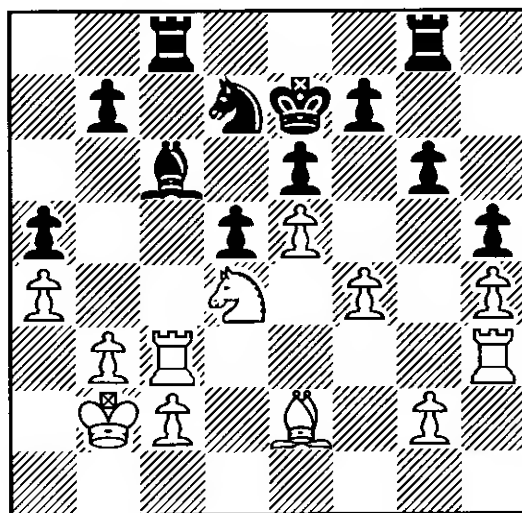
Exercise 9: Black to play and win.



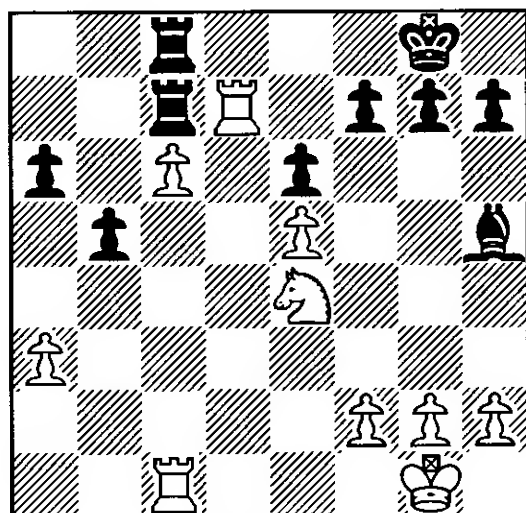
Exercise 12: White to play and win.



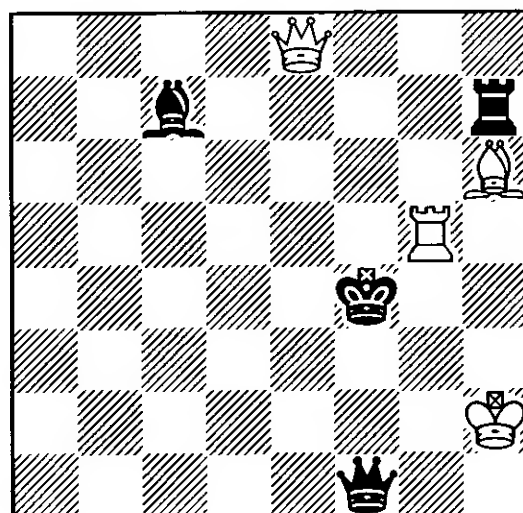
Exercise 13: White to play and win.



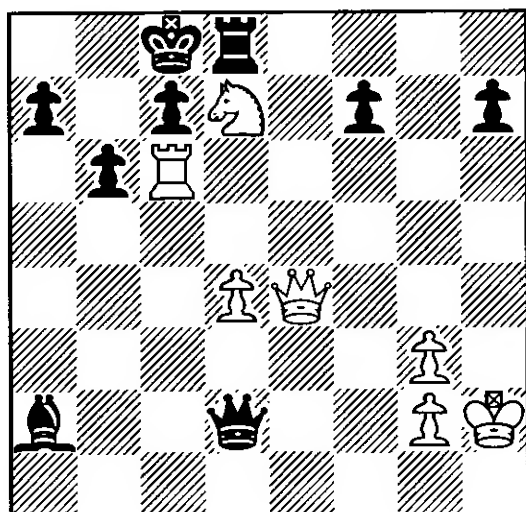
Exercise 16: White to play and win.



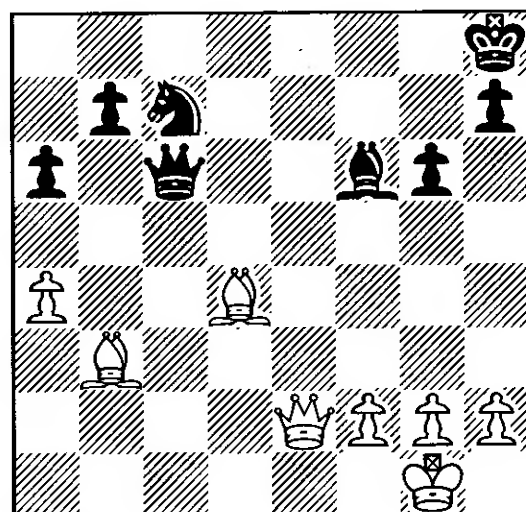
Exercise 14: White to play and win.



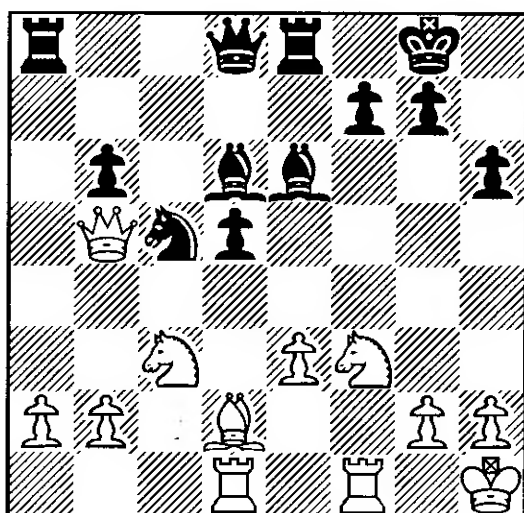
Exercise 17: White to play and draw.



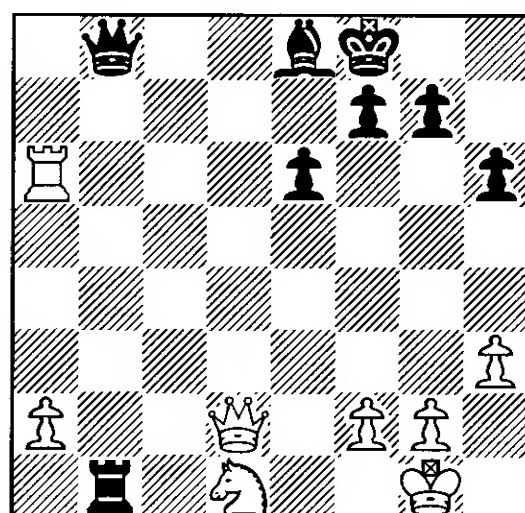
Exercise 15: White to play and win.



Exercise 18: White to play and win.

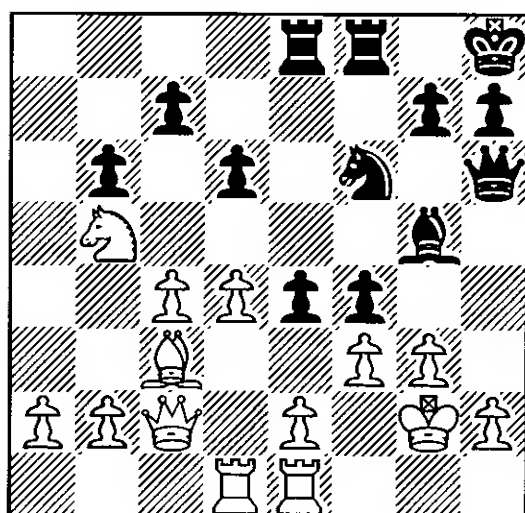


Exercise 19: Black to play and win.

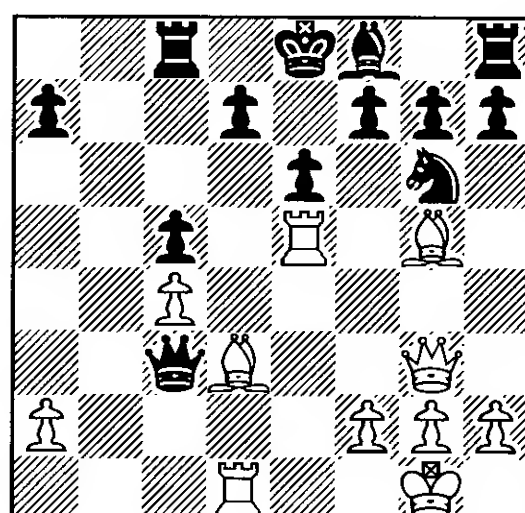


Exercise 20: Black to play and win.

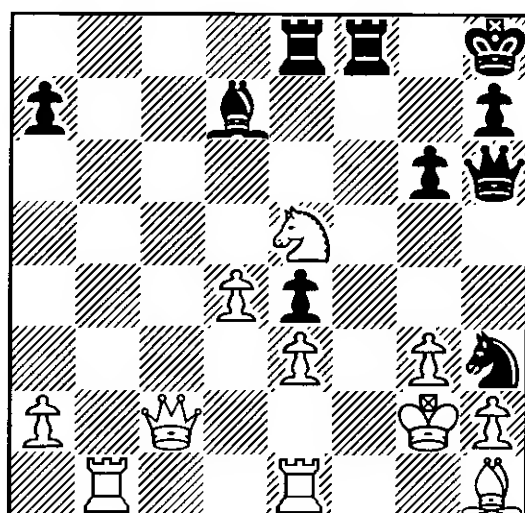
Combinations



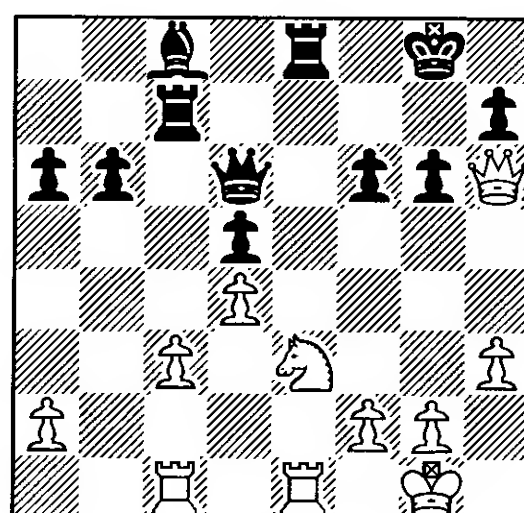
Exercise 21: Black to play and win.



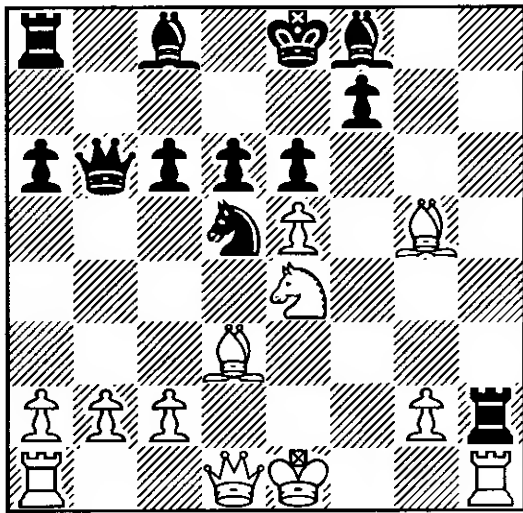
Exercise 23: White to play and win.



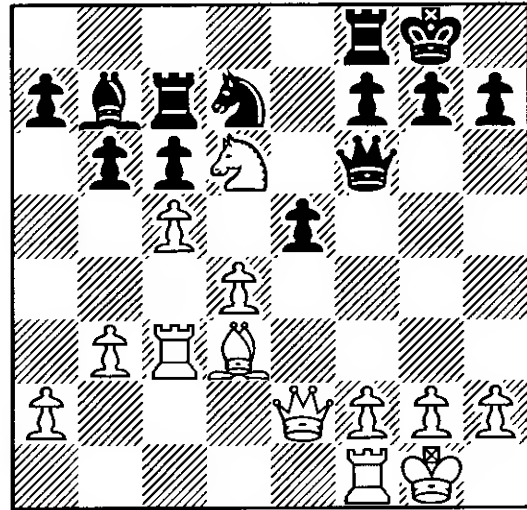
Exercise 22: Black to play and win.



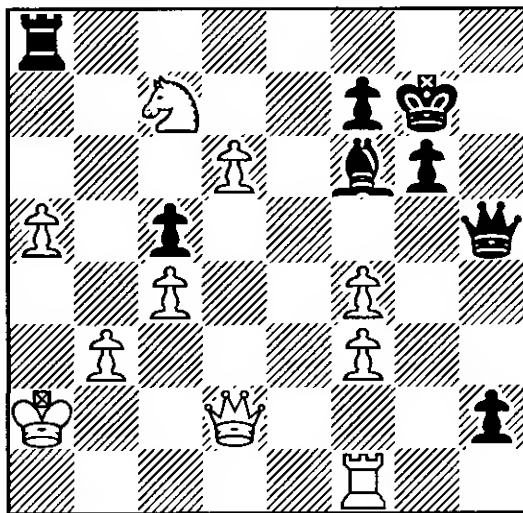
Exercise 24: White to play and win.



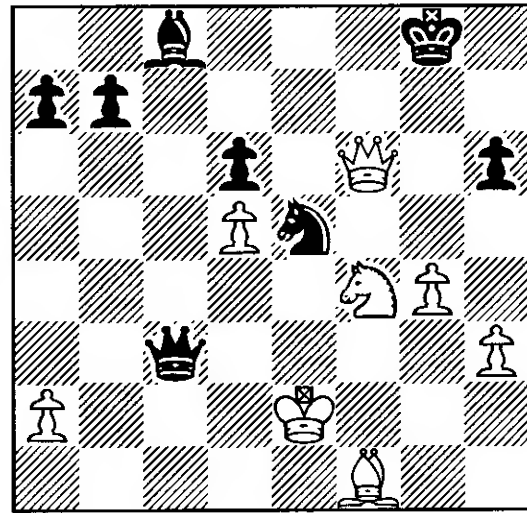
Exercise 25: White to play and win.



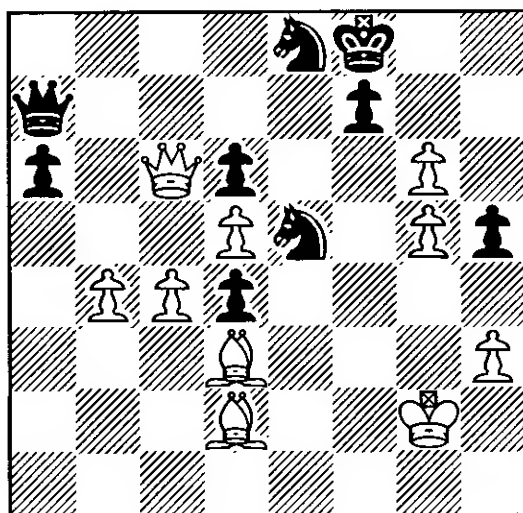
Exercise 28:
White to play and win as clearly as possible.



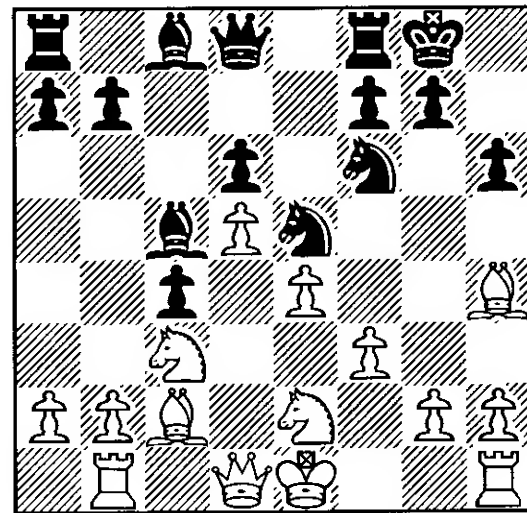
Exercise 26: White to play and win.



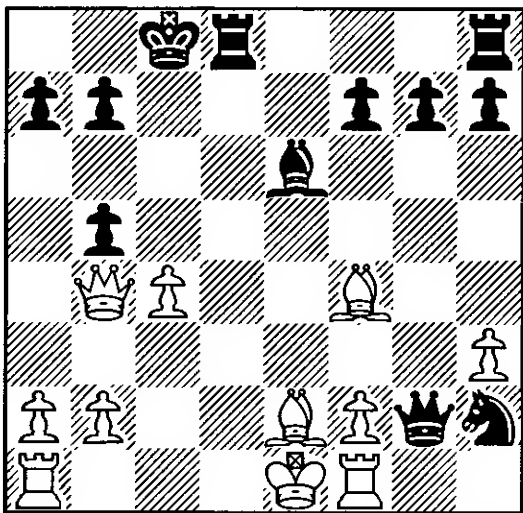
Exercise 29:
Black to play and win as clearly as possible.



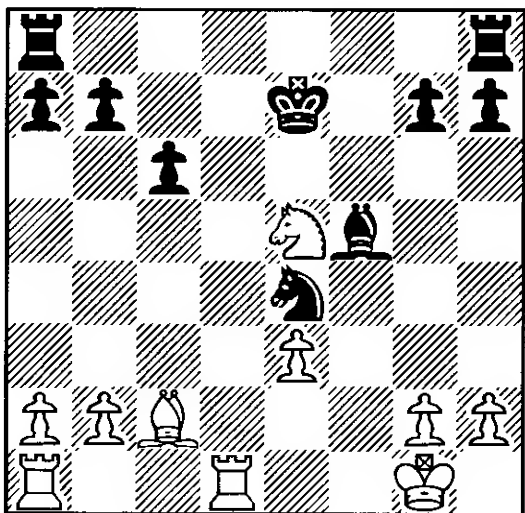
Exercise 27: White to play and win.



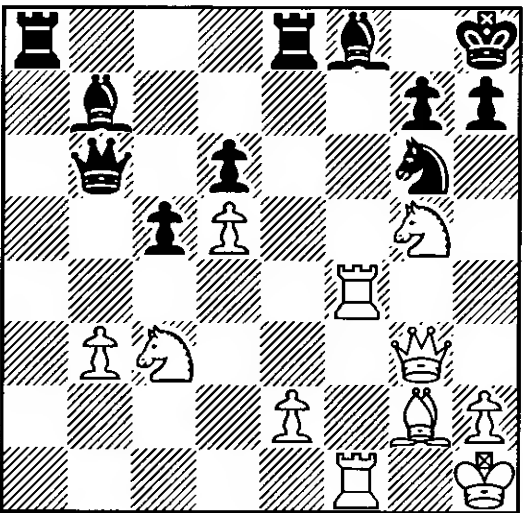
Exercise 30: Black to play and win.



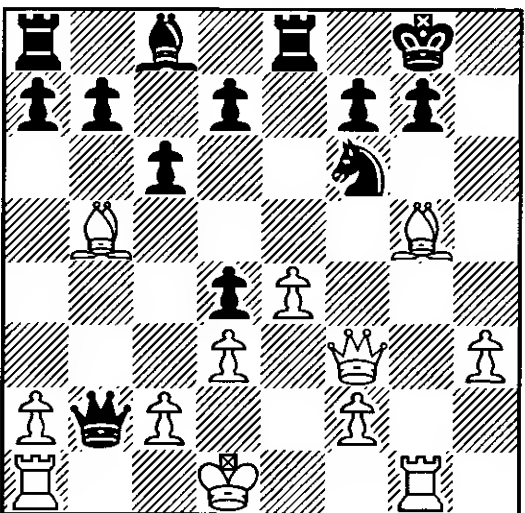
Exercise 31: Black to play and win.



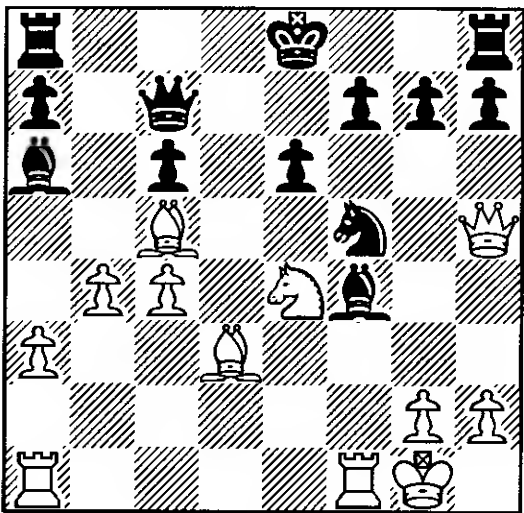
Exercise 34: White to play and win.



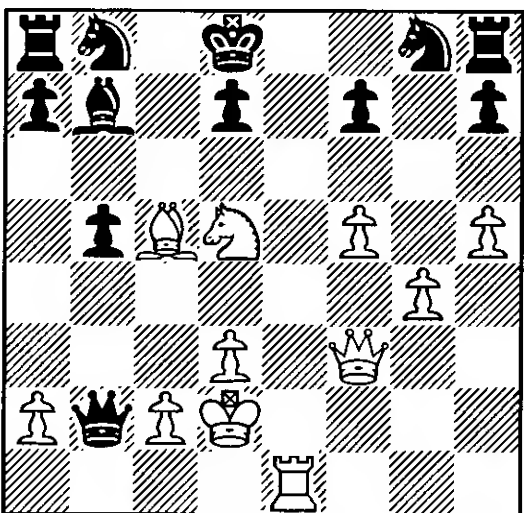
Exercise 32: White to play and win.



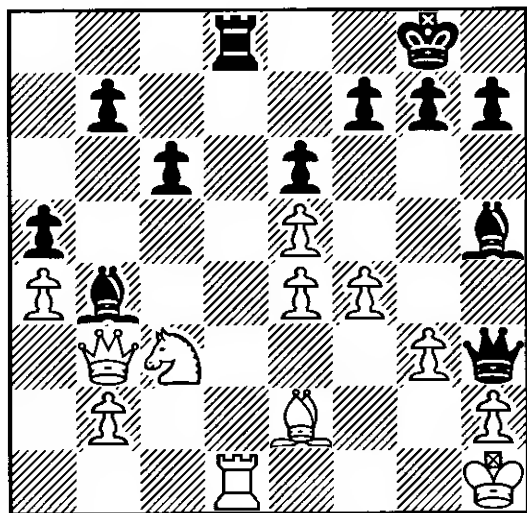
Exercise 35: White to play and win.



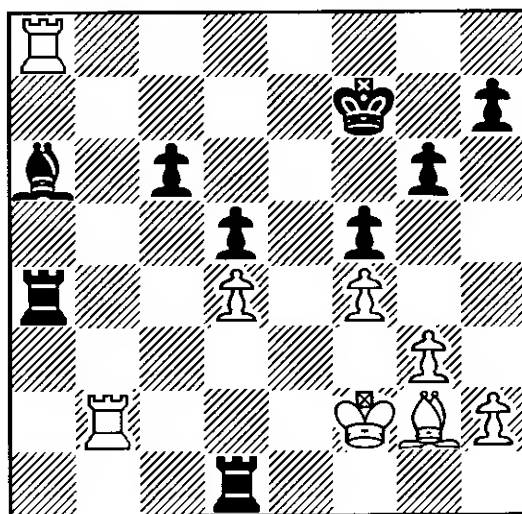
Exercise 33: White to play and win.



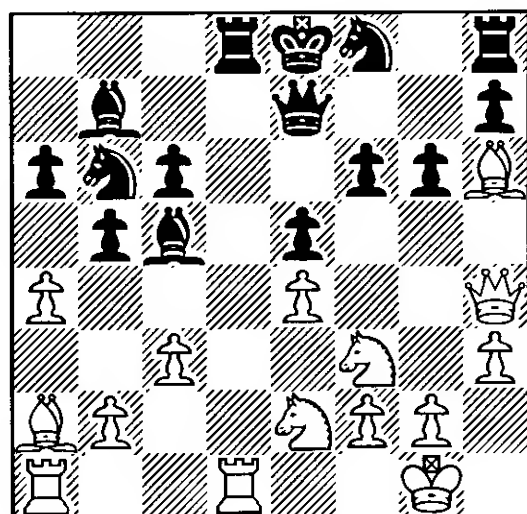
Exercise 36: White to play and win.



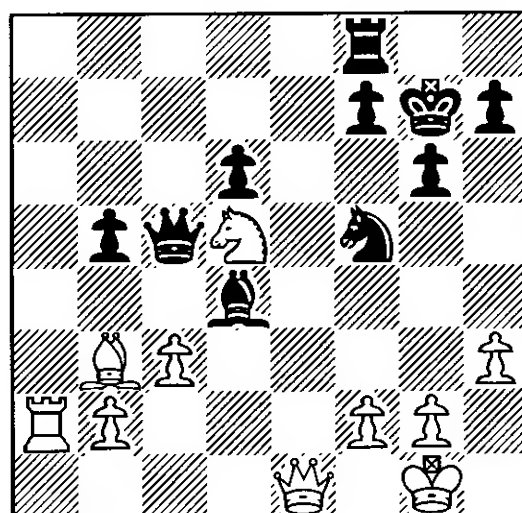
Exercise 37: Black to play and win.



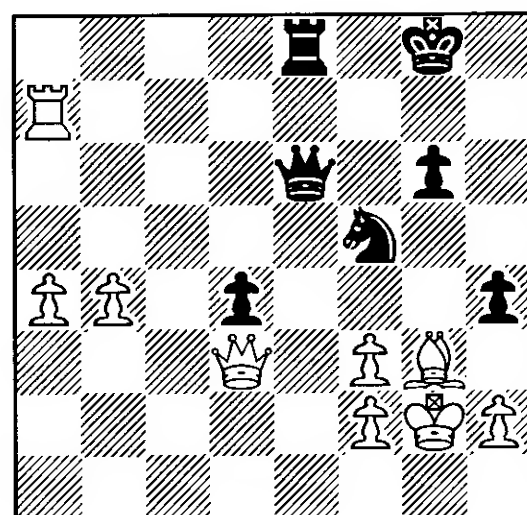
Exercise 40: White to play and win.



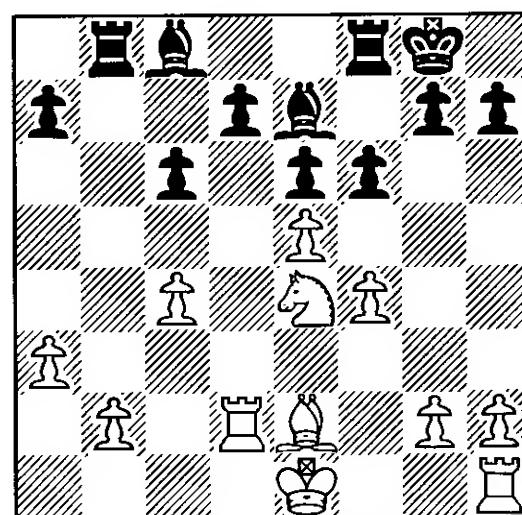
Exercise 38: White to play and win.



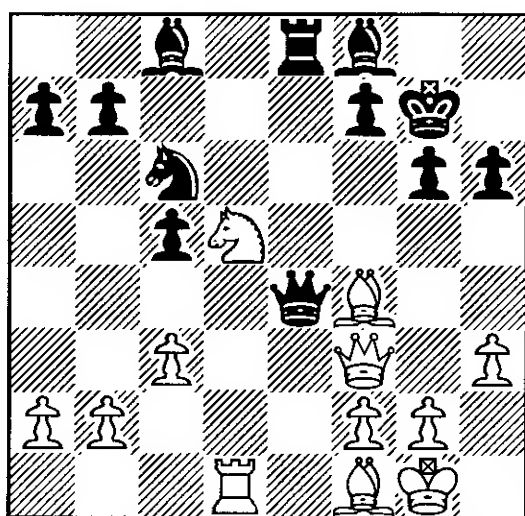
Exercise 41: Black to play and win.



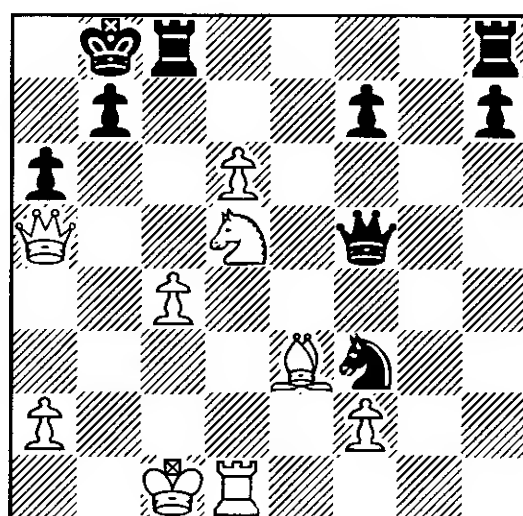
Exercise 39: Black to play and win.



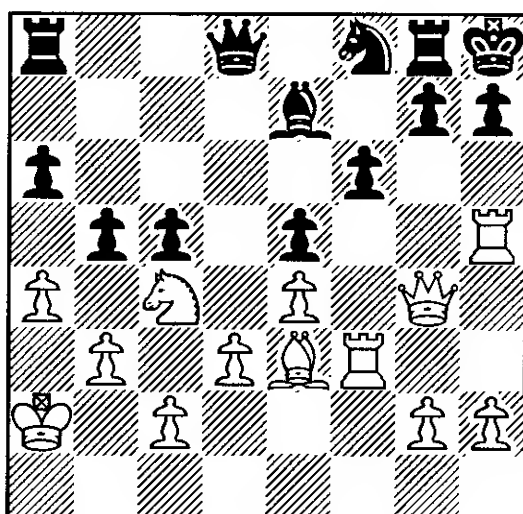
Exercise 42: Black to play and win.



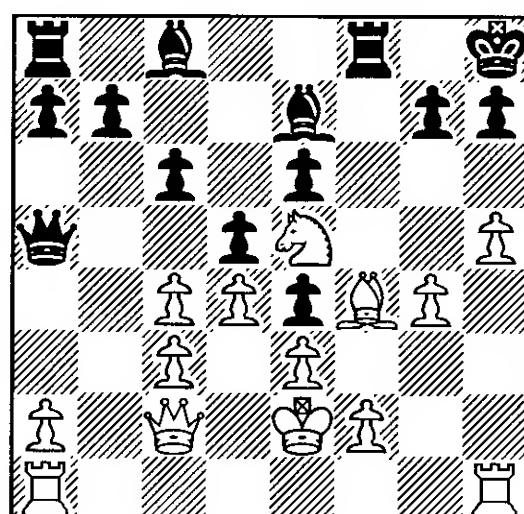
Exercise 43: White to play and win.



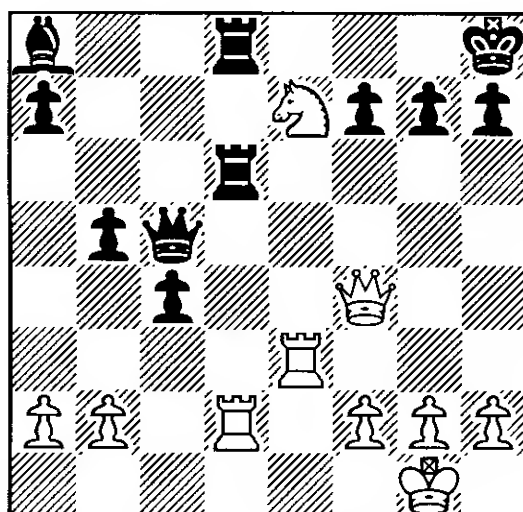
Exercise 46: White to play and win.



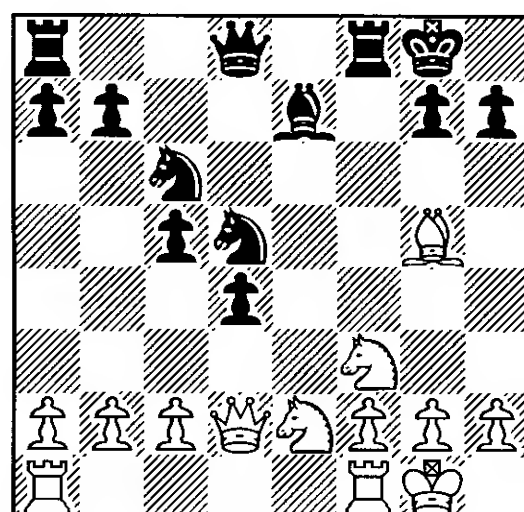
Exercise 44: White to play and win.



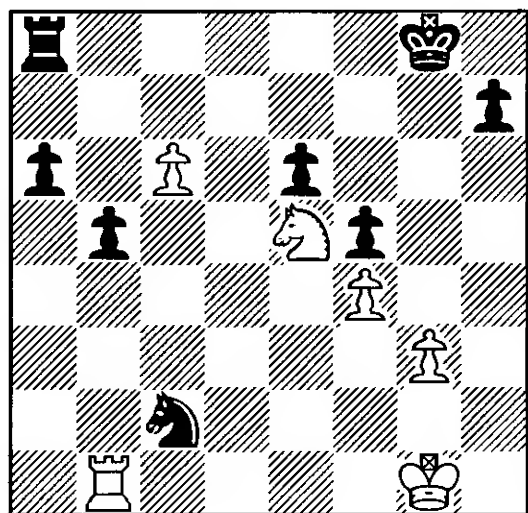
Exercise 47: White to play and win.



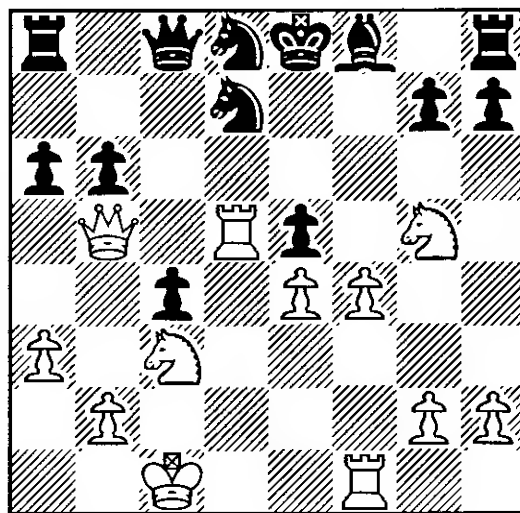
Exercise 45: White to play and win.



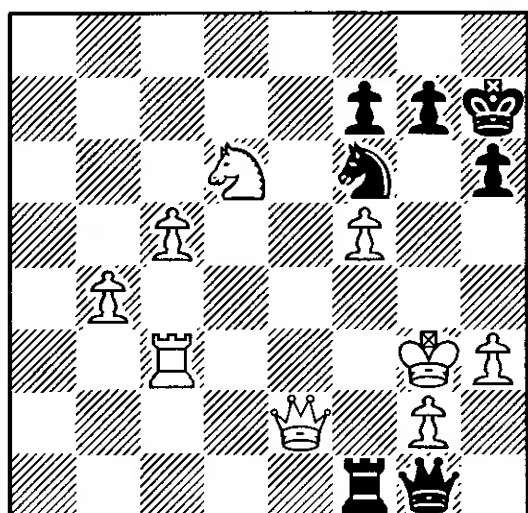
Exercise 48:
Black to play and win as clearly as possible.



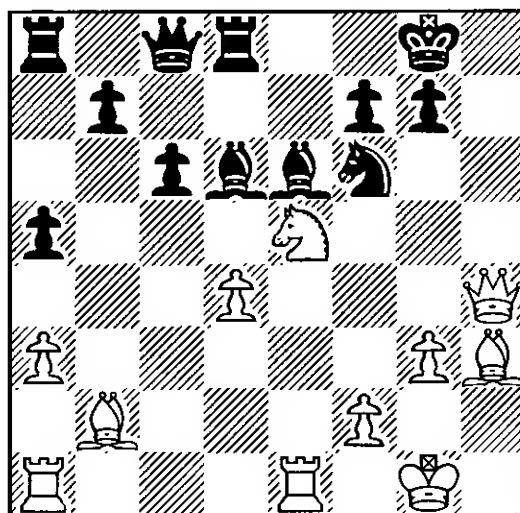
Exercise 49: White to play and win.



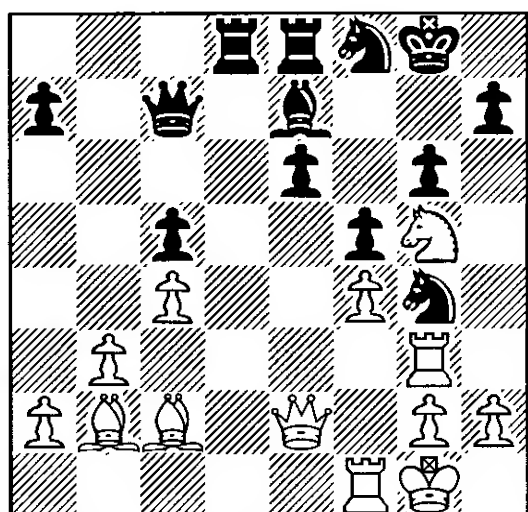
Exercise 52: White to play and draw.



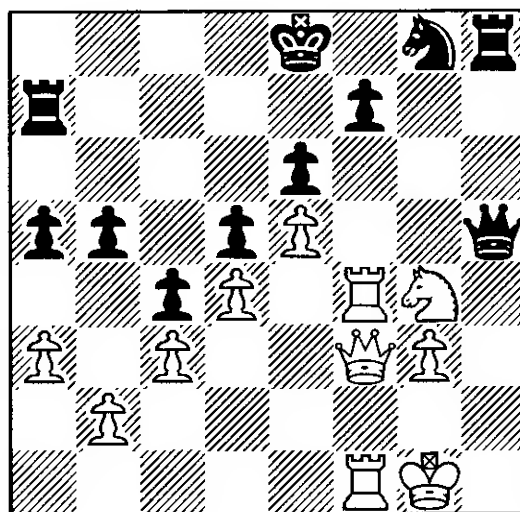
Exercise 50: Black to play and win.



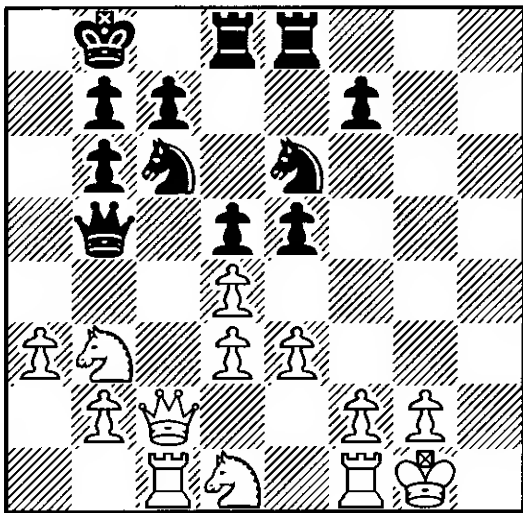
Exercise 53: White to play and win.



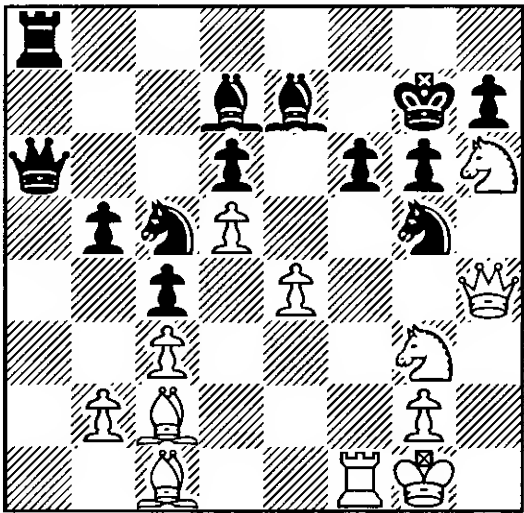
Exercise 51: White to play and win.



Exercise 54: White to play and win.
(Make sure you calculate all the way to a clearly winning position.)

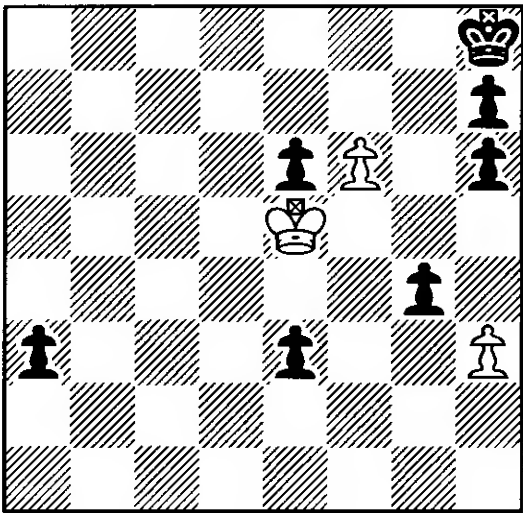


Exercise 55: Black to play and win.

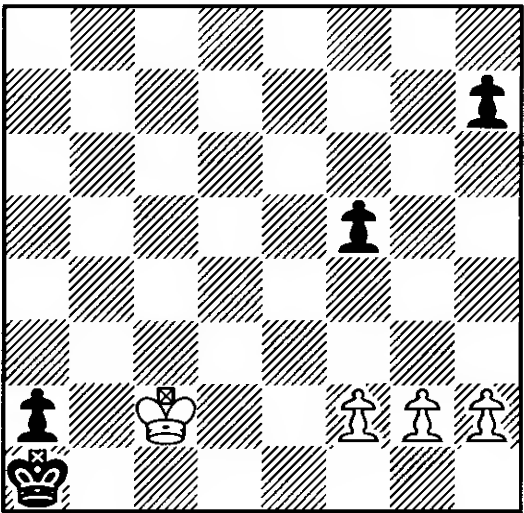


Exercise 56: White to play and win.

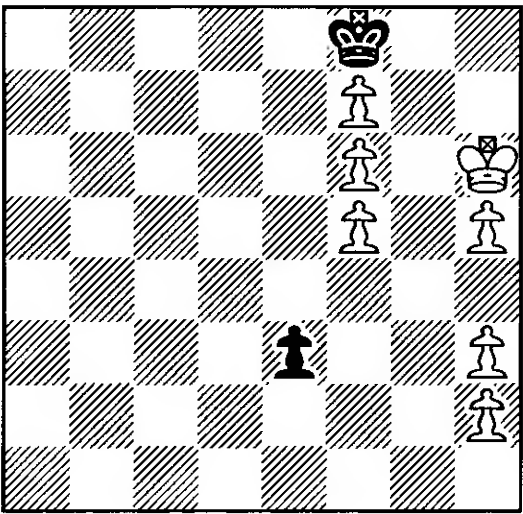
Pawn Endings



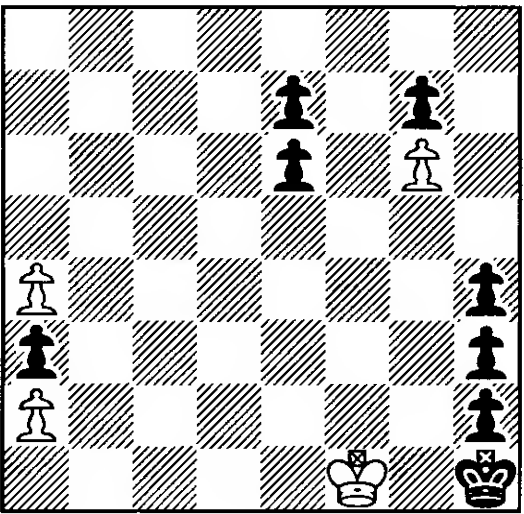
Exercise 57: White to play and win.



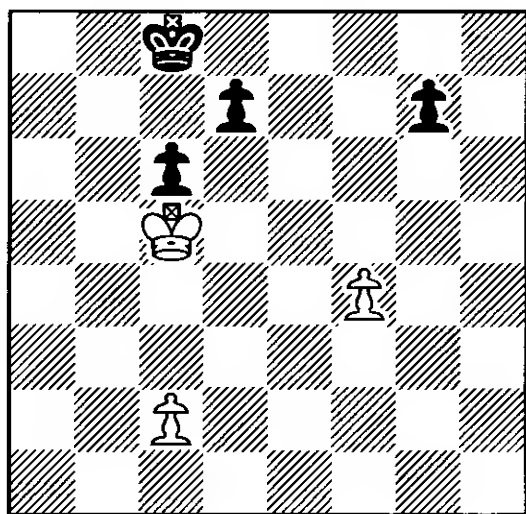
Exercise 59: White to play and win.



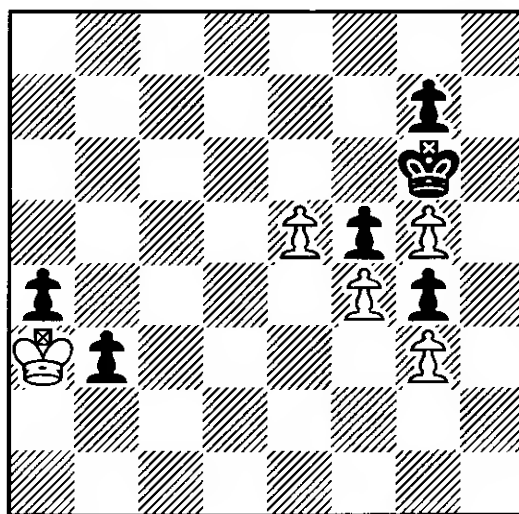
Exercise 58: White to play and draw.



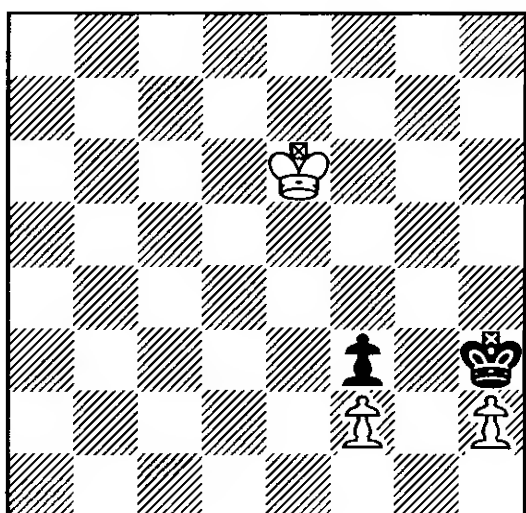
Exercise 60: White to play and win.



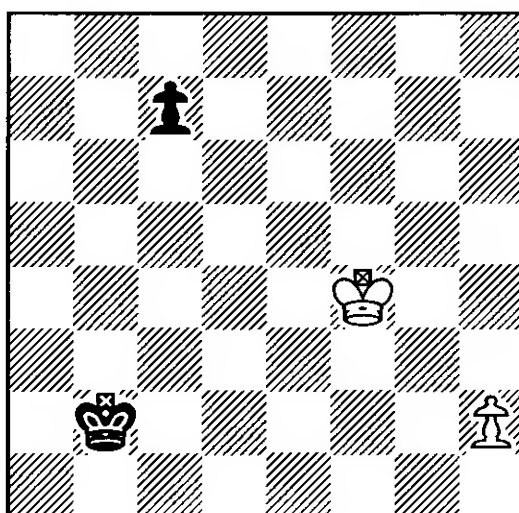
Exercise 61: White to play and draw.



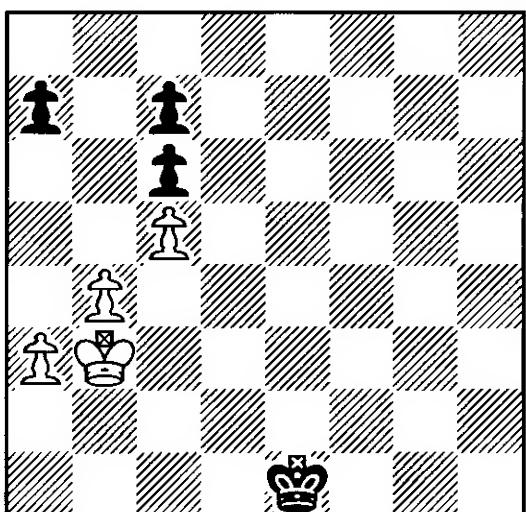
Exercise 64: White to play and win.



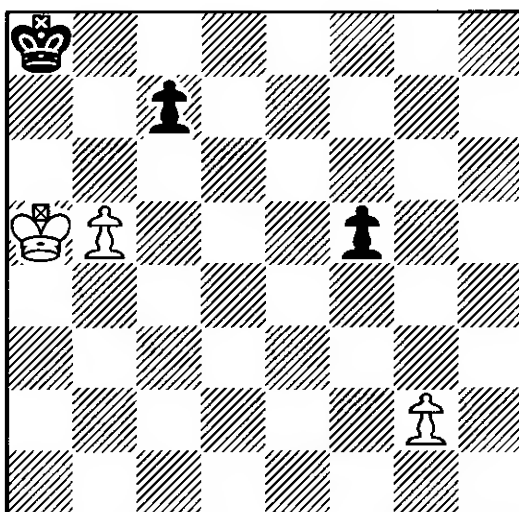
Exercise 62: White to play and draw.



Exercise 65: White to play and win.

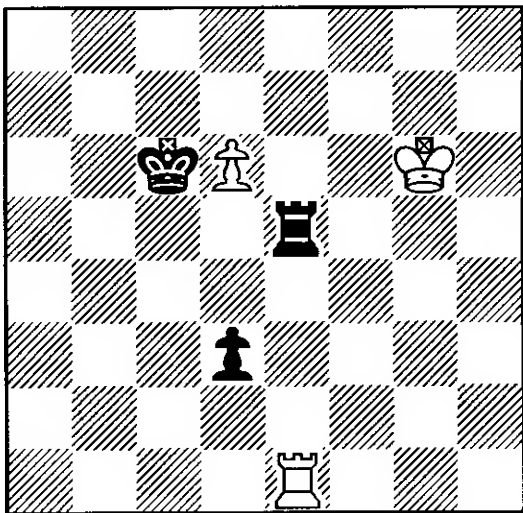


Exercise 63: White to play and win.

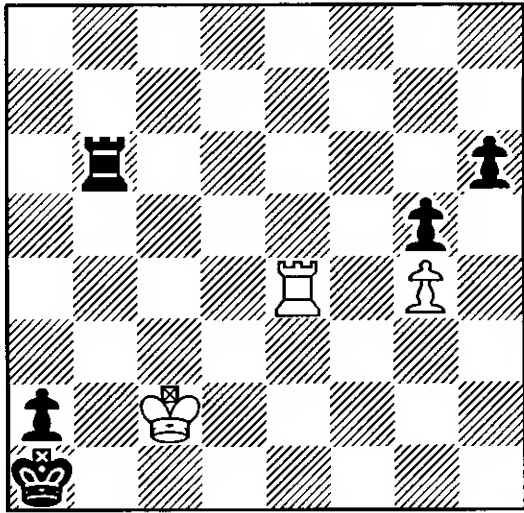


Exercise 66: White to play and win.

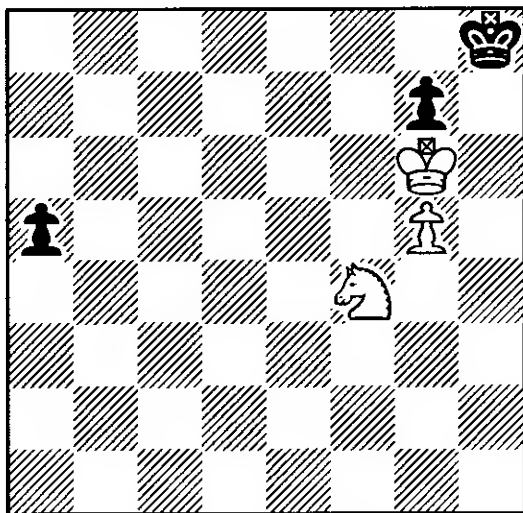
Studies



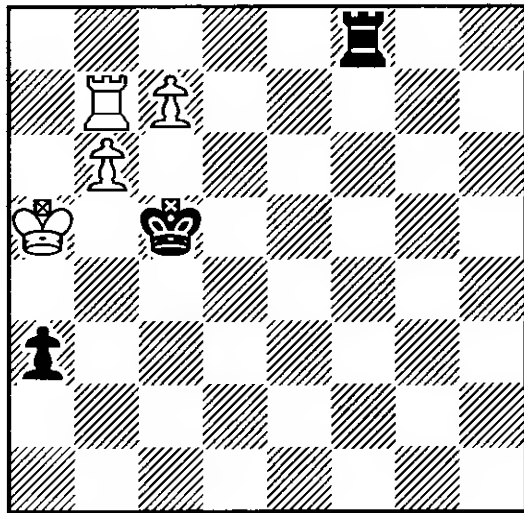
Exercise 67: White to play and win.



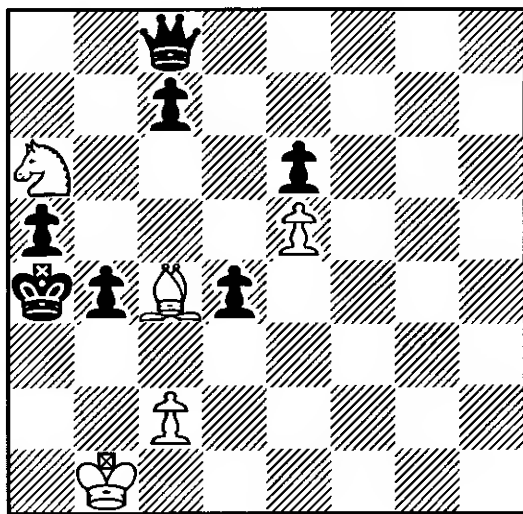
Exercise 70: White to play and win.



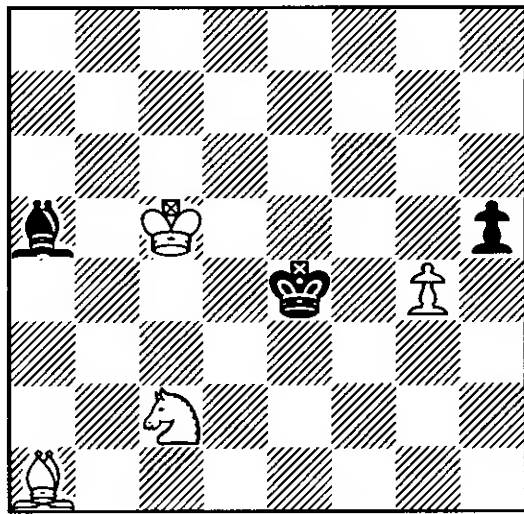
Exercise 68: White to play and win.



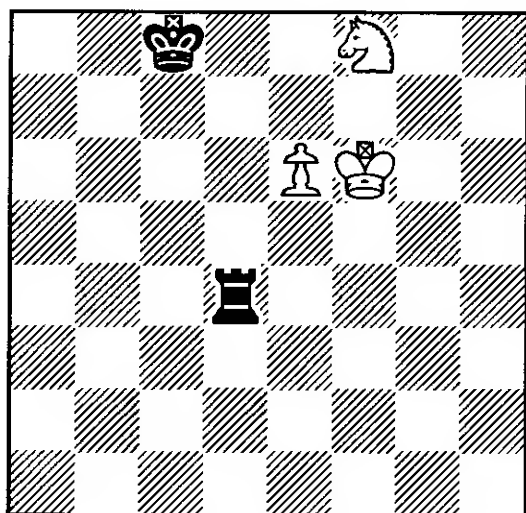
Exercise 71: White to play and win.



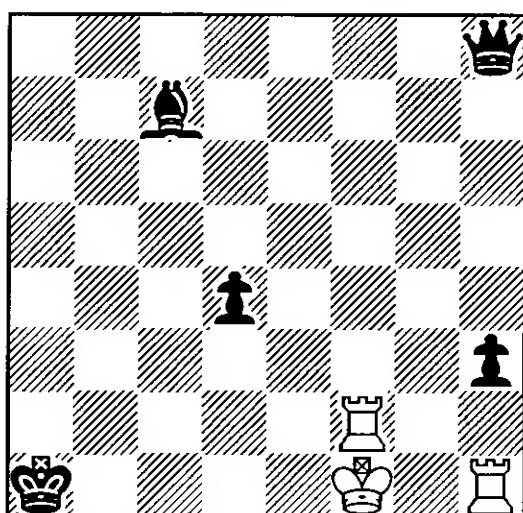
Exercise 69: White to play and win.



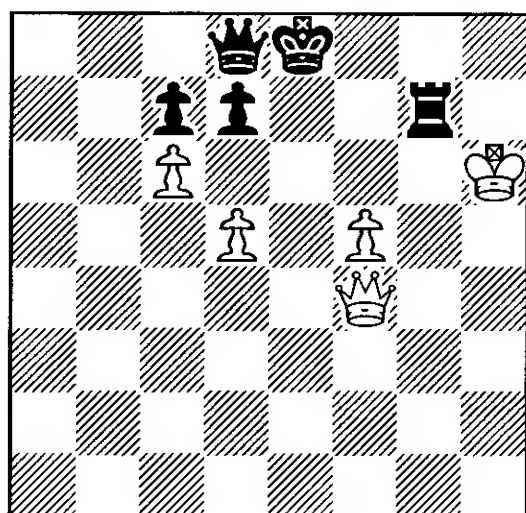
Exercise 72: White to play and win.



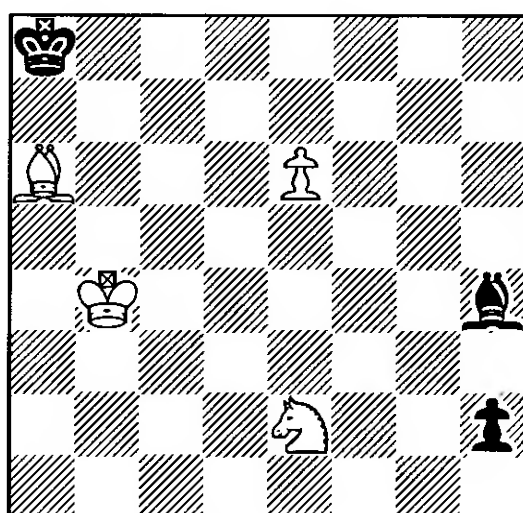
Exercise 73: White to play and win.



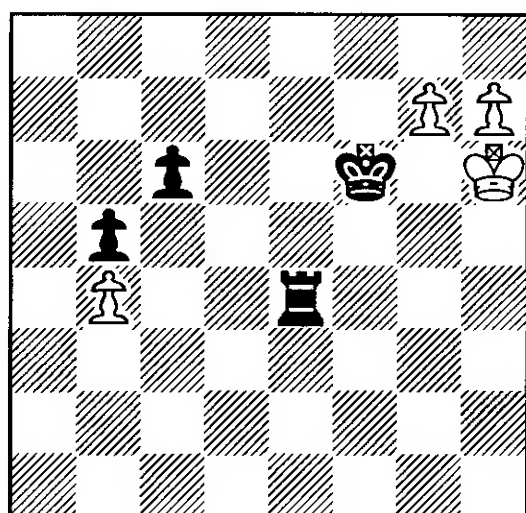
Exercise 76: White to play and draw.



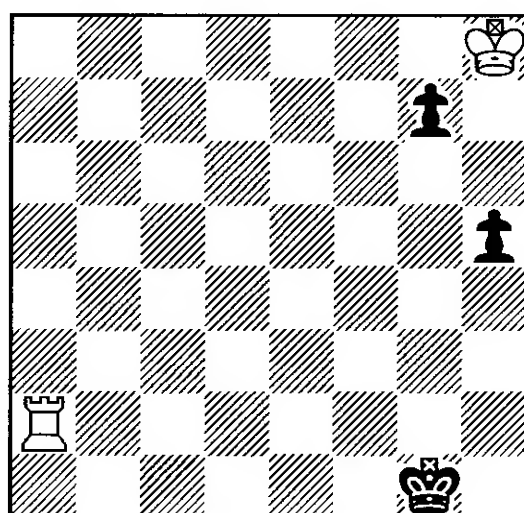
Exercise 74: White to play and win.



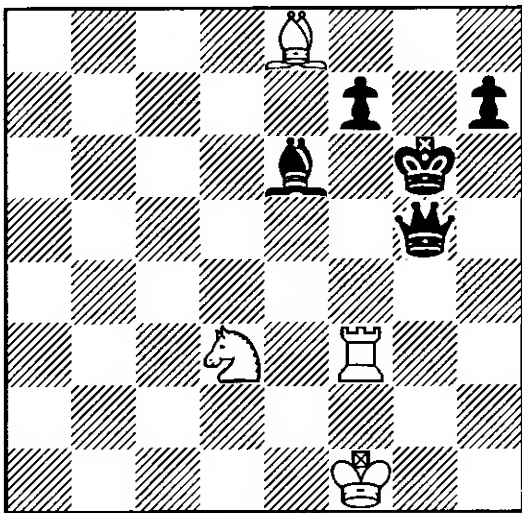
Exercise 77: White to play and draw.



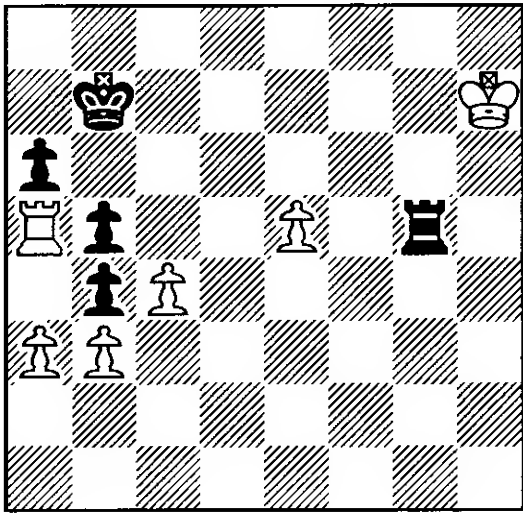
Exercise 75: White to play and win.



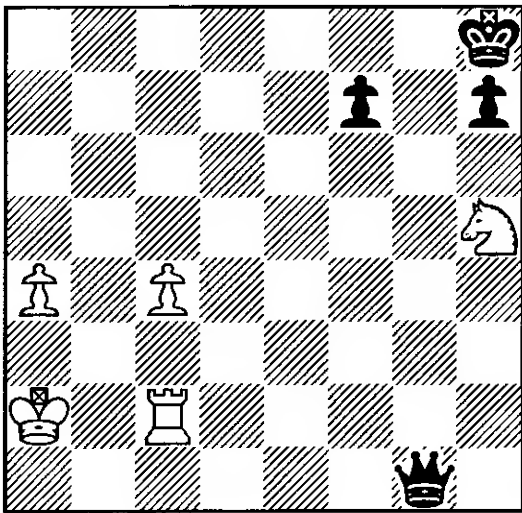
Exercise 78: White to play and win.



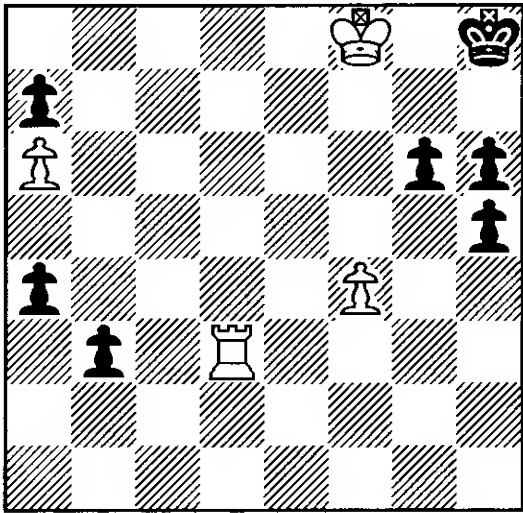
Exercise 79: White to play and draw.



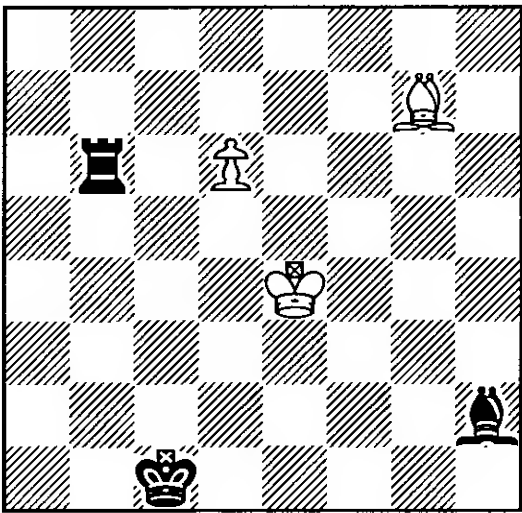
Exercise 82: White to play and win.



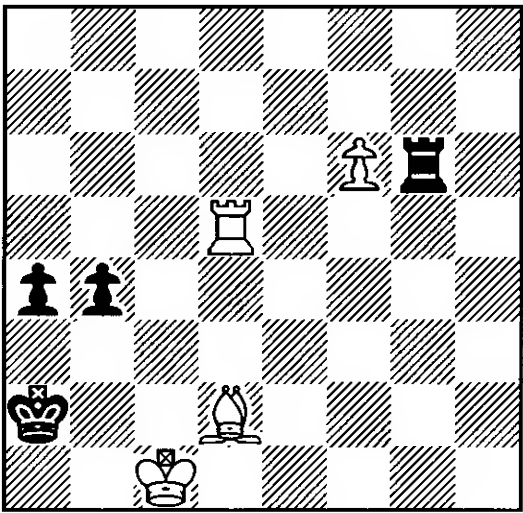
Exercise 80: White to play and win.



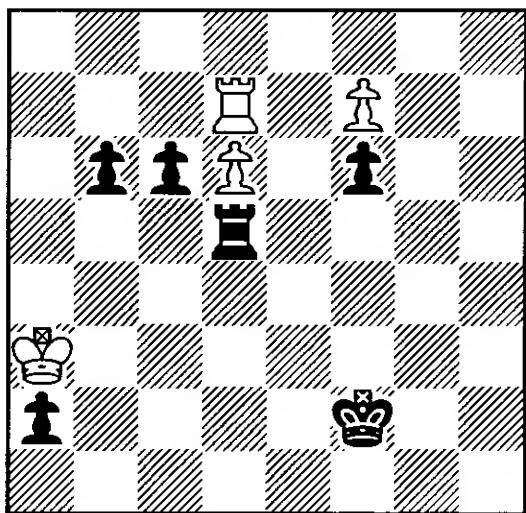
Exercise 83: White to play and win.



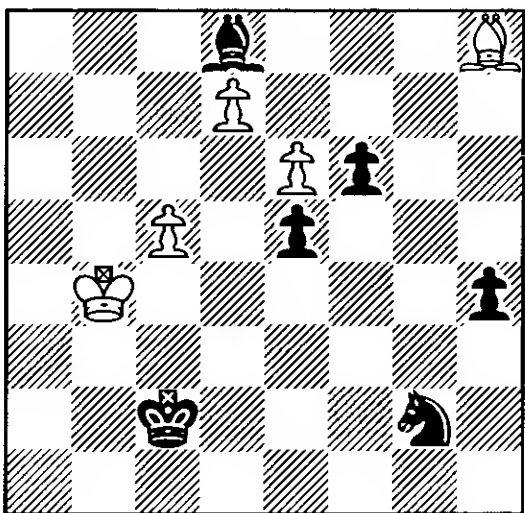
Exercise 81: White to play and draw.



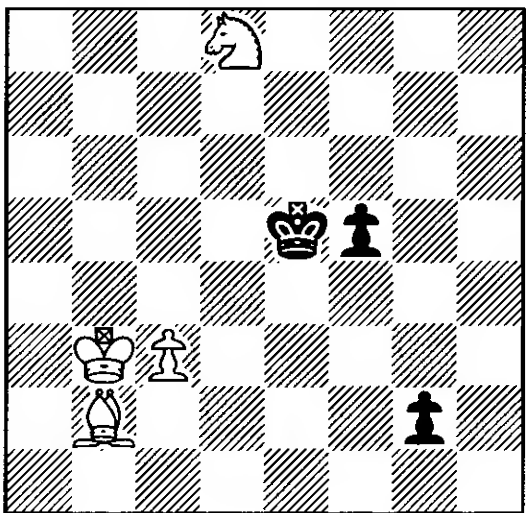
Exercise 84: White to play and win.



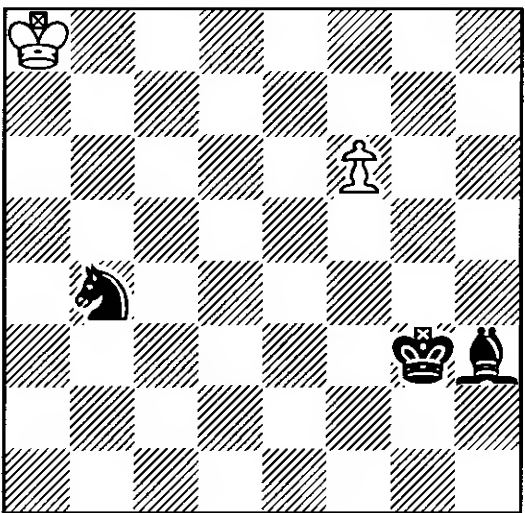
Exercise 85: White to play and win.



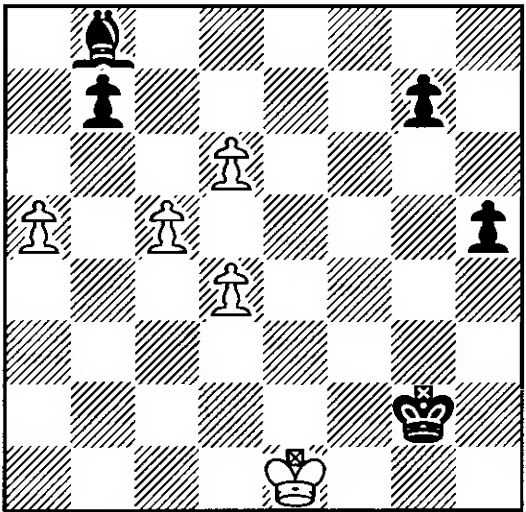
Exercise 88: White to play and draw.



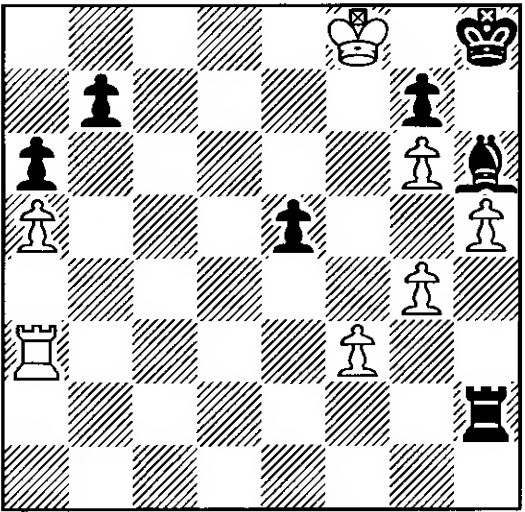
Exercise 86: White to play and win.



Exercise 89: White to play and win.

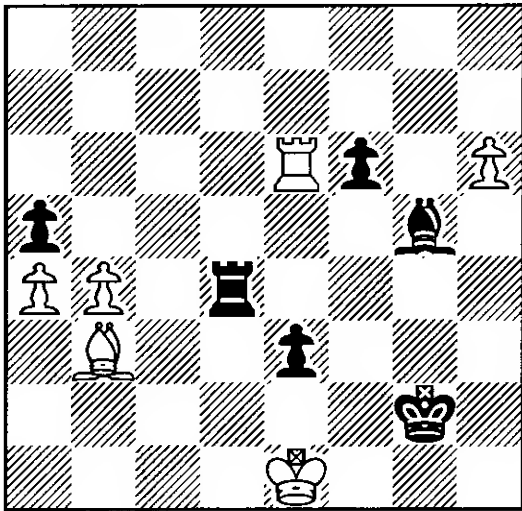


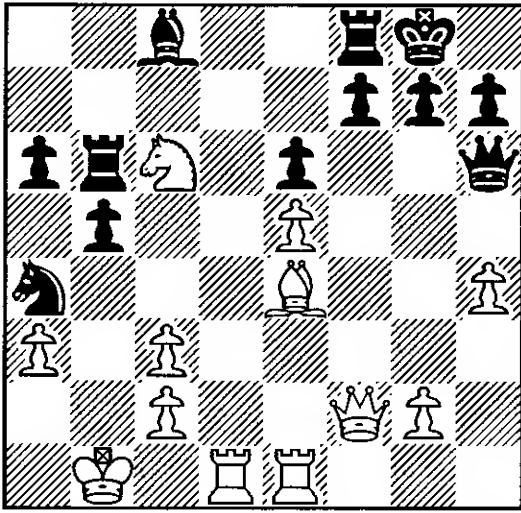
Exercise 87: White to play and win.



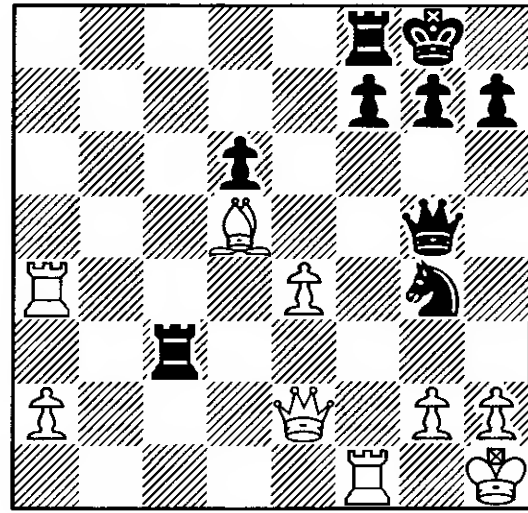
Exercise 90: White to play and win.

Positions for in-depth calculation

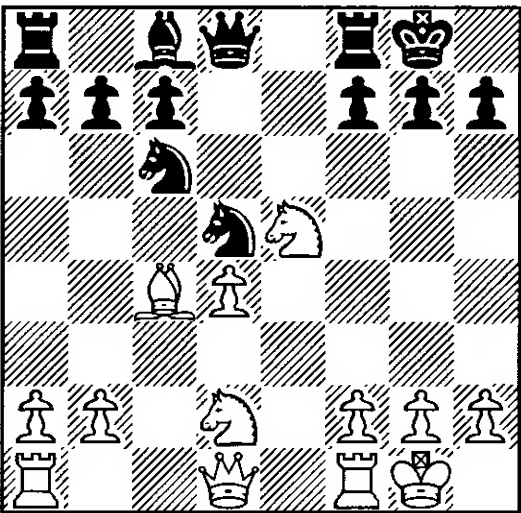




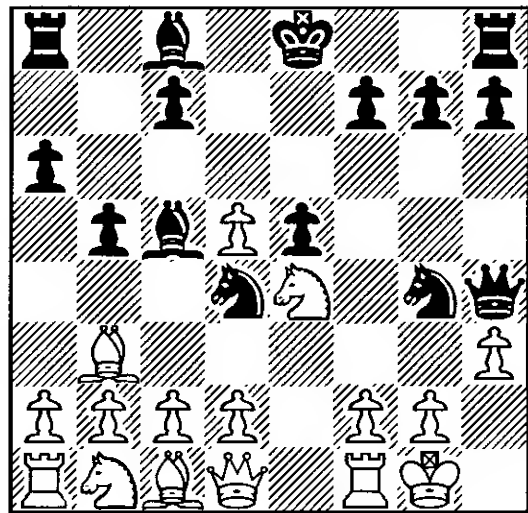
Exercise 97: White to play and win.



Exercise 99: White to play.
Calculate all variations after 30 ♖xf7!.
Refute as many as you can.



Exercise 98: Calculate the consequences
of 11... ♘xd4 from Black's perspective.



Exercise 100: Black to play and win.

CHAPTER TEN

Solutions

We have now come to the solutions to the exercises given on the previous pages. If you have not done the exercises yet, I advise you to do so – and to do them thoroughly. One of the points of the grading system below is that you are rewarded not only for seeing the first move and the ideas, but also the opponent's defensive resources and alternative variations. I have tried to grade the positions and lines according to their importance.

I would repeat my recommendation to do the exercises together with a trainer, parent or a friend, who can then ask you about the different variations and grade you fairly. The second best option is write down or tape your solutions.

It is always difficult to create a system of scoring that can estimate the true chess level of the participant. Not least because this book is concerned only with the different aspects of calculation, and hence the estimate will have nothing to do with opening play, positional understanding, endgames and so on.

However, the scoring system below does reward the abilities I value highest in a chess player: concentration, thoroughness and determination.

The grading system

The grading system works like this... To start

with you get 1000 points just for doing the test! Partly because completing any test is an achievement in itself, but also 1000 is the lowest legal rating in Denmark. If you are the worst player in the land, you will most probably be graded around 1000.

After this simply add the points you score in each exercise to the initial 1000 and you will obtain find your grading somewhere between 1000 and 2700. So, sorry Garry and colleagues, you will have to lose rating points to do these exercises. But then 2700 really means 2700+, as you cannot calculate a performance rating for perfect results.

In each exercise you will notice you can pick up points along the way. You get can add these to your score if you had seen the necessary preceding moves indicated. In some exercises the sum of possible points is greater than the maximum allowed score for that exercise. This is intentional, so that finding the first move is not an absolute requirement for solving the exercise, though of course it scores points. Seeing crucial variations in the position is rewarded by this system of grading.

Another advantage of the grading system is that partly solving combinations, or solving only the easy combinations will still net a good deal of points, while some greater

achievements will give fewer points than might be expected. The idea is to reflect what players of different levels usually see.

Solutions to Candidate moves exercises

(Maximum score for this section: 200 points)

All these exercises give 10 points for finding the right idea. On two occasions choosing a weaker move scores a few points as well.

Exercise 1

Sasikiran-Venkatesh

Mumbai 2004 (variation)

White wins immediately with **26 f7+!** ♔xf7 **27 0-0** and he ends up a piece up.

Exercise 2

Mednis-Westerinen

Szolnok 1975 (variation)

In his analysis Mednis disregarded this position because he missed **1 ♖e4!** winning a piece and the game. It is important that the black king had previously moved (to e7 and back), otherwise 1 ♖e4 could be answered by 1...0-0-0!.

Exercise 3

Ovsejevitch-Aagaard

Budapest 2003 (variation)

I had considered entering this position but, as Ovsejevitch pointed out, White has the strong desperado **22 ♖a5!! ♔e7** (22...♖xh3 23 ♖xd8) **23 ♖xf6+ ♔xf6** **24 ♔h4** and White keeps the extra piece.

Exercise 4

Berthelot-Prie

Nantes 2003 (variation)

The black king needs to decamp. The only way to do so is to create an escape hatch by **21...♖xc2+!** **22 ♖xc2** (or 22 ♔xc2 axb3+ and Black can again escape via f7) **22...♔xg6** **23 ♖xh6+ ♔xf7** and the white

attack does not seem that dangerous.

Exercise 5

Aagaard-Østergaard

Denmark 2003 (variation)

White should play **26 ♖c8!** and Black will lose the exchange.

Exercise 6

Polugaevsky-Azmaiparashvili

Reykjavik 1990

White needs to penetrate the black position without allowing ...♖cc2+. This is achieved by simple tactics.

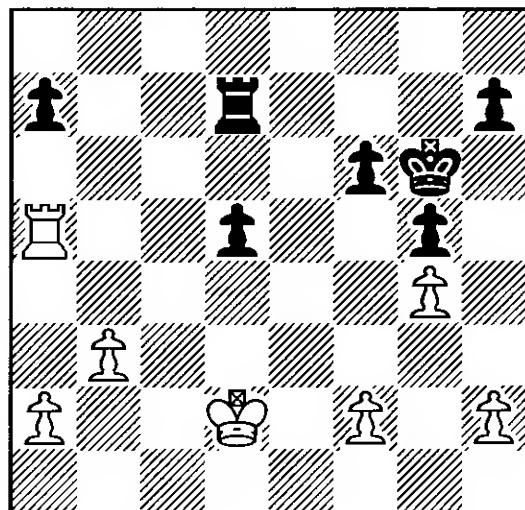
27 ♖e6!

Probably the most difficult thing is to see the strength of this move.

27...♖xe6

Black cannot defend. If 27...♔g6 28 ♖d6! followed by 29 ♖aa6 with a winning advantage, or 27...♖c2+ 28 ♖xc2 ♖xe6 29 ♖xa7+ and White wins.

28 ♖xe6+ ♔g6 **29 ♖xc7 ♖xc7** **30 ♖a5 ♖d7** **31 g4!**



Curtailling Black's kingside counterplay, thus enabling White to win on the queenside. The game concluded:

31...h5 **32 h3 h4** **33 b4 ♖f7** **34 ♖a6 ♖c7** **35 b5 d4** **36 a4 ♖e7** **37 a5 ♖b7** **38 b6 axb6** **39 ♖xb6 ♖c7** **40 ♖b3**

40 ♖b4! was even stronger according to Polugaevsky.

40...f5 **41 f3 ♖e6** **42 a6 ♖a7** **43 ♖a3**

♙e5 44 ♙d3 ♙f4 45 ♙xd4 ♙g3 46 gxf5
 ♙xh3 47 ♙c5! g4 48 ♙b6 ♖a8 49 ♙b7
 ♖f8 50 a7 g3 51 a8♙ ♖xa8 52 ♖xa8 g2
 53 ♖g8 1-0

Exercise 7

End of study by G.De Rossi

2nd honorary mention, *La Strategie* 1912

1...bxa1♙! threatens ...♙c2+ and mates.
 So White is forced to play 2 bxc8♙ and
 Black is stalemated (showing why 1...bxa1♙
 was no good).

Exercise 8

Epishin-Volokitin

Copenhagen 2002

Here the two grandmasters overlooked a
 simple winning move.

11 ♙d3?!

This is also quite strong, so if this was
 your choice, you can take 3 points as conso-
 lation. But much better was 11 g4! winning a
 piece after 11...♙xg4 12 ♙xe4 or 11...♙xc3
 12 ♙xc3. Or if 11...♙xf2 12 ♖xf2 ♙xg4 13
 d5 ♙b4 14 ♙f1 and Black has nothing.

11...♙xc3 12 ♙xc3 ♙a3?

Preferable was 12...♙d8 with the better
 game for White.

13 ♙xf5 gxf5 14 ♖c2! ♖ad8 15 d5 ♙b4
 16 ♙xg7 ♙xg7 17 ♖d2 ♙a5 18 e4 fxe4
 19 ♙g5 f5 20 ♙e6+ ♙h8 21 f3 ♖f6 22
 ♙xd8 ♙xd8 23 fxe4 fxe4 24 ♖xf6 exf6
 25 ♙g4

and White won.

Exercise 9

Degraeve-Palac

Montpellier 1997

The position arose after the moves 1 e4 c5
 2 c3 d5 3 exd5 ♙xd5 4 d4 ♙f6 5 ♙f3 ♙g4 6
 ♙bd2 ♙c6 7 ♙c4 ♙xf3 8 ♙a4. Here Adams
 had analysed 8...♙g5? 9 ♙xf3! ♙xg2 10
 ♙e2!! ♙xh1 11 d5 with a dangerous attack
 for White. Unfortunately, this line was re-
 futed by Murray Chandler, whose *Fritz* com-
 puter found 8...♙d1!! 9 ♙xd1 ♙xg2 and

White has no compensation for the pawn.

Exercise 10

Cu.Hansen-Akopian

Groningen 1991 (variation)

Here Black wins with a simple tactic:
 14...♙f3!! 15 ♙d3 (15 gxf3?? ♙xf3+ wins
 the queen) 15...♙xe2+ 16 ♙xe2 ♙xb2
 and Black is a pawn up for nothing.

Exercise 11

Timman-Hübner

Wijk aan Zee 1982

Although White has many strong moves,
 he has only one which wins on the spot: 40
 ♙e6! and Black must resign (since if
 40...♙xe6 41 ♙f8 mate). Also possible was
 40 ♙f6+ ♙xf6 41 ♙d5 winning the queen
 after 41...♙e6 42 ♙xf6+ ♙xf6 43 ♙xe4+
 ♙g6 (since 43...♙h8? 44 ♙e8+ mates). If this
 was your choice take three points.

Exercise 12

Filguth-De La Garza

Mexico 1980

White wins with the surprising 1 ♙h1!!
 and Black resigned due to 1...♙f6 2 ♙g5!
 hxc5 3 hxc5 winning the queen or mating.

Exercise 13

P.H.Nielsen-Ivanchuk

Copenhagen 2003 (variation)

This position (after ...♙d8-c8) did not arise
 in the game as White would then have a very
 strong move:

17 ♖f2!

Threatening 18 ♙xa5 and the black knight
 cannot go to c4 because the bishop on d7 is
 hanging. White cannot win a piece immedi-
 ately because of 17 ♙xa5 ♙c5+, while after
 17 ♙h1 ♙c4! 18 ♙xc4 ♙xc4 the knight on
 e2 would also be hanging.

17...♙xc3

The only move.

18 ♙xc3 ♙xc3 19 ♙f1 ♙e8 20 ♖f3 ♙c6
 21 ♖b4! when the knight is trapped out on

the rim to be picked off by 22 ♖a3 (for example).

This is computer analysis, but we can be certain that White knew and remembered it all. The practical player would need to work out the lines himself. Of course Ivanchuk knew all this as well and, instead of 16...♖dc8, played 16...♙d7-g4! eventually obtaining a draw from an inferior position.

Exercise 14

A.Abreu-Podgaets

Havana 1999

White would love to play 30 ♖d6, but Black has 30...♖xd7 31 ♖xc8 ♖c7 32 ♖b6 ♙e2! 33 ♖c5 (not 33 ♖a8? ♖c8 34 c7 ♙c4 35 ♖d1 ♙d5 and Black wins) 33...b4! 34 axb4 ♙b5 with a likely draw. But White can first improve his position with:

30 g4!!

In the game White played 30 ♖xc7 ♖xc7 31 ♖d6 ♙e2 32 ♖b7 ♙f8 33 f4 ♙c4 34 ♖a5 with the advantage, but might not have won had Black continued 34...♙d5 35 ♙f2 ♙e8 36 ♙e3 ♙d8 37 ♙d4 ♖c8 38 ♙c5 ♙c7.

30...♙xg4

If 30...♖xd7 31 cxd7 ♖xc1+ 32 ♙g2 ♖d1 33 ♖d6 or 30...♙g6 31 ♖d6! and White wins.

31 ♖d6 ♙f8

If 31...♖xd7 32 cxd7 ♖d8 33 ♖c8 and White wins.

32 ♖xc8 ♖xc8 33 ♖a7

with a clearly won position.

Exercise 15

Van der Wiel-Short

Biel Interzonal 1985

This legendary finish is one of the greatest one move exercises I have ever seen: **34 ♖d6!!** threatening 35 ♖a8 mate, and Black resigned since if 34...cxd6 35 ♖c6 mate.

Exercise 16

Leko-Ruzele

Debrecen 1992

White wins a pawn with a stunning move.

31 ♙a6!!

After this White still needs to show some accuracy in order to gain the full point, but the main work has been done.

31...f6

If 31...♖b8 32 ♖xc6+ ♖xc6 33 ♙xb7 ♖xc3 34 ♖xc3 ♙d7 35 ♙a3 followed by b3-b4 and White wins – Leko.

32 exf6+ ♖xf6 33 ♖xc6+ ♖xc6 34 ♙xb7 ♖b6 35 ♖c7+ ♙d6 36 ♖hc3 ♖e4 37 ♖3c6+ ♖xc6 38 ♖xc6+ ♙d7 39 ♖a6! ♙c7 40 ♙a8 ♖f8 41 c4! ♖xf4 42 cxd5 e5 43 ♖xa5 ♖xh4 44 d6+! ♖xd6 45 ♖xe5 ♙b8 46 ♙d5 ♖g4 47 a5 ♖d4 48 ♙f3 ♖f5 49 ♙c3 ♖f4 50 ♖e4 ♖h4 51 ♖xh4 ♖xh4 52 ♙e4 1-0

Exercise 17

Study by Gurgénidze

1st prize, Polish Chess Federation 1985.

This brilliant study is about stalemate: **1 ♖e3+!! ♙xe3+ 2 ♖g3+!** and no matter what, White is stalemated on the next move.

Exercise 18

Riga-Orel

City Contest, Russia 1896

1 ♙b2!! intends 2 ♖e7 and wins. The city of Orel decided to resign since there is no defence; for instance if 1...♖e8 2 ♖xe8+! ♖xe8 3 ♙xf6 is mate, or 1...h6 2 ♖c4! (threatening ♖g8 mate) 2...♖xc4 3 ♙xf6+ ♙h7 4 ♙xc4 wins a piece.

Exercise 19

Illescas Cordoba-Morozevich

Pamplona 1998

22...♙c8!!

After this White loses the exchange more or less for nothing and therefore also the game. If instead 22...♙f5 23 ♙c1 and White is fine.

23 ♖xd5

Or 23 b4 ♙a6 24 ♖c6 ♖c8 25 ♖xd5 ♙xf1 26 ♖xf1 ♖e6 and Black wins.

**23...♙a6 24 ♖xb6 ♙xf1 25 ♖xf1 ♖xa2
26 ♖xd8 ♖xd8**

and Black won.

Exercise 20

Leko-Bologan

Dortmund 2003.

This brilliant finish by Bologan shows his enormous strength. A computer will produce the solution almost immediately but it is a hard line for a human to find.

41...♖e5!! (5 points)

With the threat of 42...♖d5. White cannot allow this and therefore plays:

42 ♖a3

Now the second half of the exercise was to find:

42...♖g5! (5 points)

White loses a piece no matter what.

43 ♖e3

If 43 ♖xg5 ♖xd1+ or 43 f4 ♖c5+ 44 ♖e3 ♖xd1+.

43...♙a4 44 ♙h2 ♖f4+ 45 g3 ♖xd1 46 ♖d8+ ♖xd8 0-1

Thanks to Mark Dvoretsky for showing me this exercise.

Solutions to Combinations

(Maximum score for this section: 600 points)

Exercise 21

Bolding-Aagaard

Denmark 1992

Black has two different ways of executing the combination, exploiting his great advantage in mobility on the kingside.

a) **24...♘g4! 25 fxxg4 fxxg3** (8 points) **0-1** was the finish in the game. White resigned because of 26 hxxg3 ♖f2+! (thematic) 27 ♙xf2 ♖h2+ 28 ♙f1 ♖f8 mate (2 points).

b) 24...fxg3!? 25 hxxg3 ♘g4! (8 points) 26 fxxg4 ♖f2+ etc. (2 points) is another way of executing the same combination. Neither variation is better than the other.

Maximum score for this exercise: 10 points. You cannot have 20 points for seeing

lines a) and b).

Exercise 22

Koerholz-L.H.Hansen

Taastrup 2002

In a winning position Black blundered with 26...♖f2+?? losing the game in one move to 27 ♖xf2! (2 points).

The winning combination was **26...♖xe5! 27 dxe5 ♙g4** (4 points) **28 ♖f1 ♙f3+ 29 ♖xf3 exf3+ 30 ♙f1 ♖xe3** (4 points) and White has no defence.

Maximum score: 8 points

Exercise 23

F.Gomez-Jos.Alvarez

Cuba 1998

White has invested a pawn to gain a development lead and can regain the pawn with 1 ♙xg6 ♖xg3 2 ♙xf7+ etc. However, there is a much stronger continuation based on the black king trapped in the centre, the unprotected queen and a change of move order.

1 ♖xe6+!! (10 points) **1...dxe6**

Black cannot play 1...fxe6 because of 2 ♙xg6+ and White wins the queen (3 points).

2 ♙e4! (3 points) **1-0**

Black resigned because of 2...♖xg3 3 ♙c6+! ♖xc6 4 ♖d8 mate, while 2...♖a5 3 ♙c6+! ♖xc6 4 ♖b8+ also leads to mate.

Maximum score: 16 points.

Exercise 24

Høi-Rossen

Copenhagen 2003

This is basic pattern training.

26 ♘xd5! (4 points) **1-0**

Because of 26...♖xe1+ 27 ♖xe1 ♖xd5 28 ♖e8+ ♙f7 29 ♖f8 mate (4 points).

Maximum score: 8 points

Exercise 25

N.Castaneda-Browne

Philadelphia 1997

15 ♖xh2! (5 points)

Actually the only move, but once you set

this up as a combination people can turn crazy. Here the point is of course to see the White's 17th move. Clearly Black failed to do so when playing 14...♖xh2??.

15...♖g1+ 16 ♙f1 ♖xh2 17 ♖xd5! (5 points)

Winning a piece.

17...exd5 18 ♘f6+ ♔e7 19 ♘g4+ ♔e6 20 ♘xh2

White has a winning endgame.

20...dxe5 21 ♙e2 f6 22 ♙d2 ♙d6 23 0-0 e4 24 ♖h1 d4 25 ♘g4 e3 26 ♙a5 ♙f4 27 ♘xf6 1-0

Maximum score: 10 points.

Exercise 26

Egger-Dive

Istanbul Olympiad 2000

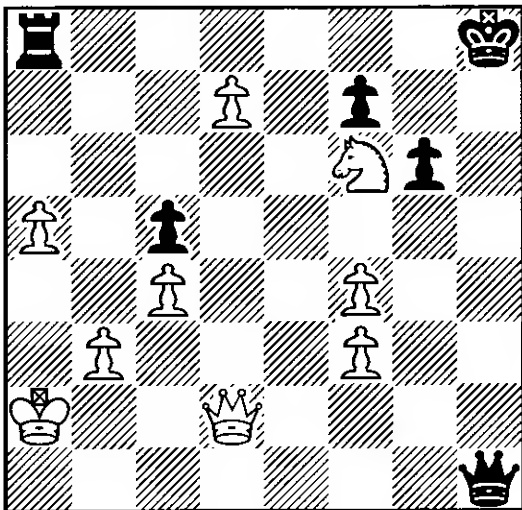
41 d7!!

41 ♘xa8? h1♖ 42 ♖xh1 ♖xh1 is very unsound; White should count himself lucky that after 43 b4 cxb4 44 ♖xb4 ♖a1+ 45 ♔b3 ♖d1+ Black only has perpetual check.

41...h1♖ 42 ♘e8+!

This is the point of the last move. 42 ♖xh1 ♖xh1 43 ♘e8+! transposes.

42...♔h8 43 ♖xh1 ♖xh1 44 ♘xf6



This position is winning for White.

44...♖d8 45 ♖b2

Many other moves wins as well here, but 45 ♖b2 is the most human solution.

45...♔g7 46 ♖e5

Here 46 ♘e8+! ♔f8 47 ♖g7+ ♔e7 48

♖f6+ ♔f8 49 ♖xd8 was simplest.

46...♖d1 47 ♘e4+ ♔f8 48 ♖xc5+ ♔g7 49 ♖e5+ ♔f8 50 ♘d6 ♖d2+ 51 ♔a3 ♖a8 52 ♖e8+ ♔g7 53 ♖xa8 ♖xd6+ 54 ♔b2 ♖d2+ 55 ♔a3 ♖d6+ 56 b4 ♖d3+ 57 ♔a4 ♖xd7+ 58 b5 ♖d1+ 59 ♔b4 ♖d2+ 60 ♔c5 ♖e3+ 61 ♔d6 ♖xf4+ 62 ♔d7 ♖xc4 63 ♖c6

and White won.

Maximum score: 10 points.

Exercise 27

E.Lund-Frink

Budapest 2002 (variation)

From an analysis to the game. White avoided this position overlooking that he wins instantly with:

1 ♖xe8+!! ♔xe8 2 g7 ♘xd3 3 g8♖+ (8 points) 3...♔e7 4 g6! (4 points)

This move should have been found in advance. The point is 4...fxg6 5 ♖g7+ and White wins. Also after:

4...♔f6 (2 points) 6 gxf7 ♖xf7 does not defend because of 7 ♖g5 mate (2 points).

Maximum score: 16 points.

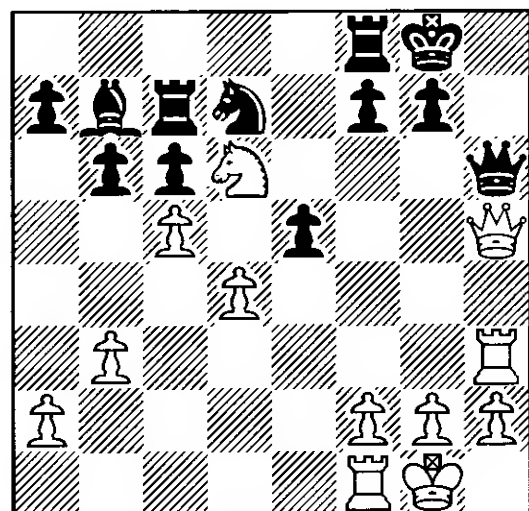
Exercise 28

Toth-Szigeti

Budapest 1946

White wins with a nice variation on the classical bishop sacrifice.

1 ♙xh7+! ♔xh7 2 ♖h3+ ♔g8 3 ♖h5 (8 points) 3...♖h6



4 ♖f5! (4 points)

This is the point of course.

4...♗xh5 5 ♖e7+ ♕h7 6 ♖xh5 mate.

Taken from the excellent *Art of Attack in Chess* by Vukovic.

Maximum score: 12 points.

Exercise 29

P.E.Nielsen-Aagaard

Denmark 2003

In time trouble Black repeated moves by 37...♗b2+?! 38 ♖d1 ♗a1+ 39 ♖e2 ♗b2+ 40 ♖d1 ♗b1+ 41 ♖e2 ♗c2+ 42 ♖e3 ♗c3+ 43 ♖e2 (the diagram position has arisen again), before falling into deep thought. The theme is the unprotected queen on f6.

43...♙xg4+!! (8 points) **44 hxg4**

If 44 ♖f2 ♖d3+ and wins the queen (1 point).

44...♗c2+ 45 ♖e1

Now if 45 ♖e3 ♖xg4+ wins the queen (1 point).

45...♖f3 mate (2 points).

Maximum score: 12 points.

Exercise 30

Mohandesi-Barsov

Leuven 2002

The theme is similar to the classic Legall's mate. Here the consequences of the combination are less severe, but still enough to decide the game in Black's favour.

13...♖xe4!! (2 points).

This kind of sacrifice is thematic and should be calculated by both White and Black.

14 ♙xd8

Or 14 ♖xe4 ♗xh4+ with a winning position.

14...♖xf3+ 15 ♖f1

If 15 gxf3 ♙f2+ 16 ♖f1 ♙h3 mate (8 points).

15...♖ed2+

It does not matter which knight Black uses, as after 15...♖fd2+ 16 ♖e1? Black has 16...♙f2 mate.

16 ♗xd2 ♖xd2+ 17 ♖e1 ♖xb1 18 ♙a5 ♖xc3 19 ♙xc3 ♖e8

Black has won the exchange and two pawns. The rest is easy.

20 h3 b5 21 ♖d1 b4 22 ♙d4 ♖xe2 23 ♙xc5 ♖xc2 0-1

Maximum score: 10 points.

Exercise 31

Hübner-Luther

Saarbruecken 2002

Black wins with a nice tactical twist.

17...♗xf1+! (5 points) **18 ♙xf1 ♖f3+ 19 ♖e2 ♖d4+ 20 ♖d2**

20 ♖e1 ♖c2+ is even worse.

20...♖c6+ (5 points) 21 ♗d6 ♖xd6+ 22 ♙xd6 ♙xc4 (2 points).

Black is two pawns up and won the endgame.

Maximum score: 12 points.

Exercise 32

Karpov-Salov

Linares 1993

It is always interesting when a new combinational theme is found in a game. This example is very nice.

32 ♖f7+ (4 points) 32...♖g8 33 ♗xg6! (2 points) **1-0**

Black resigned as after 33...hxg6 34 ♖h4 there is no defence against 35 ♖h8 mate (6 points).

White has more difficult wins including knight sacrifices on h7, e.g. 32 ♖xh7 ♖xf4 (32...♖xh7 33 ♗d3! ♙e7 34 ♖g4) 33 ♖g5 g6 (33...♖h5 34 ♗d3 ♖f6 35 ♖xf6!) 34 ♗xf4 ♗c7 35 ♗h4+ ♖g8 36 ♖ce4. But the simplest way should be appreciated, so other wins give just 6 points.

Maximum score: 12 points.

Exercise 33

Rublevsky-Asrian

Moscow 2004

White wins with a double exchange sacrifice.

19 ♖xf4! (3 points)

Wiping out Black's dark squared defence.

19...♗xf4 20 ♖f1 ♖h6

Black has nothing better. If 20...♗c7 21 ♖xf5! (2 points) 21...exf5 22 ♘d6+ and White wins, e.g. 22...♔d8 23 ♕xf5 ♖f8 24 ♖h4+ f6 25 ♖d4 White wins. Also after 20...♗e5 21 ♘d6+! it is all over (2 points).

21 ♖xf5 (3 points) **21...♖xh5**

If 21...exf5 22 ♘d6+ ♔d7 and now White wins in many ways, one of them being 23 ♖xf7+ ♔d8 24 ♘xf5 ♖c1+ 25 ♕f1 ♖d1 26 ♕d6 and Black must part with his queen as well as any hope of saving the game.

22 ♘d6+ ♔d7 23 ♖xh5

and White won convincingly.

Maximum score: 10 points.

Exercise 34

Luther-Dausch

Hoeckendorf 2004

22 g4! (4 points)

The beginning of a not too difficult, but still elegant, manoeuvre.

22...♔e6

This is of course the only defence.

23 ♘f3! (2 points)

Other moves are also strong, but this wins the most easily.

23...♕g6 24 ♕xe4 ♕xe4 25 ♘g5+ ♔e5 26 ♘f7+ (2 points)

followed by ♘xh8 and Black had no compensation for the exchange.

Maximum score: 8 points.

Exercise 35

Yemelin-Kharlov

Moscow 2002

16 ♕c1? (2 points).

This move looks a good candidate, but here White misses a really strong combination: 16 ♖xf6!! (6 points) and if 16...gxf6 17 ♕c1+ ♔h7 18 ♕xb2 cxb5 19 ♕xd4 ♖e6 20 ♔d2 b6 21 ♖g4 (6 points) followed by ♖ag1 and ♖h4 mate, or 16...♖xa1+ 17 ♕c1 g6 18 ♖g4 (3 points) and Black has no defence, e.g.

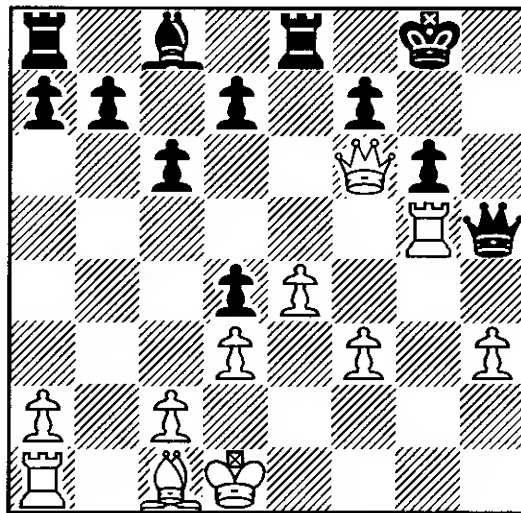
18...♖e6 19 ♖d8+ ♔g7 20 ♖h4 with mate to come.

16...♖xb5! (3 points)

16...♖xa1? 17 ♖xf6 g6 18 ♖g4 transposes to the previous note.

17 ♖xf6 ♖h5+

Not 17...g6 18 ♖g5 ♖b4 19 ♖e5! ♖xe5 20 ♕h6 and White wins.

18 f3 g6 19 ♖g5**19...♖h7?**

Black could have made a draw here with 19...♖xh3 20 ♖xg6+ fxg6 21 ♖xg6+ ♔f8 22 ♕a3+ ♖e7 23 ♖f6+ ♔g8 24 ♕xe7 ♖f1+ 25 ♔d2 ♖f2+ 26 ♔c1 ♖e1+ 27 ♔b2 ♖c3+ with perpetual check.

20 ♖xd4

White now again has a very strong attack.

20...♖g7

20...d5 21 ♕b2 ♕xh3 22 ♔d2 ♖h6 23 ♖g1 dxe4 24 fxe4 with a probably irresistible attack.

21 ♕b2 ♖xd4 22 ♕xd4 d6

Objectively better was 22...b6 23 h4 c5 24 ♕b2 ♕b7 25 h5 ♖e6 26 ♔d2 c4 27 ♖ag1 cxd3 28 cxd3 ♖c8 29 hxg6 ♖xg6 30 ♖xg6+ fxg6 31 ♖xg6+ though the endgame greatly favours White.

23 h4 ♔f8 24 ♔d2 ♔e7 25 f4 c5 26 ♕b2 ♔d7

Or 26...b5 27 f5 gxf5 28 exf5 ♕b7 29 h5 ♕f3 30 ♖e1+ ♔d7 31 h6 d5 32 ♕f6 and White wins.

27 f5 gxf5 28 h5!

The h-pawn wins the game.

28...fxe4 29 h6 ♖c6

Or 29...e3+ 30 ♖e2 b5 31 h7 ♙b7 32 ♖h5 and wins.

30 h7 e3+ 31 ♖e2 f6

Or 31...♙e6 32 ♙f6 ♖h8 33 ♖h1 ♖ae8 34 ♙xh8 ♖xh8 35 ♖g8 and it is all over.

32 ♙xf6

Black cannot offer any more resistance.

32...♙e6 33 ♖h1 ♖h8 34 ♙xh8 ♖xh8 35 ♖xe3 b5 36 a3 a5 37 ♖h6 a4 38 ♖xe6 ♖xh7 39 ♖gg6 1-0

Maximum score: 15 points.

Exercise 36

Anderssen-Kieseritsky

London 1852 (variation)

In his analysis of this classic game Kasparov discovered:

24 ♙b6+!! (10 points).

24 ♗e3 does not work because of 24...♙xd5 25 ♙b6+ ♖c8! (3 points).

24...axb6 25 ♗e3

and Black has no way to save the game, e.g. 25...♙xd5 26 ♗xb6+ ♖c8 27 ♖e8 mate.

Maximum score: 13 points.

Exercise 37

R.Janssen-I.Sokolov

Leeuwarden 2002

Black decided the game with a killer blow.

23...♖d2!! (12 points) 0-1

White resigned due to 24 ♖xd2 ♙f3+! 25 ♙xf3 ♗f1 mate or 25 ♖g1 ♗g2 mate.

Maximum score: 12 points.

Exercise 38

S.B.Hansen-Hillarp Persson

Malmö 2003

Here White saw the winning combination, but for some reason believed that the alternative was just as strong.

25 ♘g5?

25 ♖xd8+ ♖xd8 26 b4 ♙d6 27 ♘g5 ♘c4 (4 points) is also tempting, but still not conclusive! The right way to proceed was 25

♘xe5! (6 points) 25...♖xd1+ 26 ♖xd1 and if 26...fxe5 27 ♙g5 wins (3 points) or 26...♗xe5 27 ♙g7 and Black loses the rook and/or his self-respect (3 points).

25...♖xd1+ 26 ♖xd1 ♘c4! (8 points) 27 b4 ♙b6 28 ♙xc4 bxc4 29 ♘f3 ½-½

White offered a draw in this advantageous position simply to avoid messing things up further.

Maximum score: 20 points.

Exercise 39

Nyback-Matthiesen

Copenhagen 2003

Here Matthiesen surprised his strong opponent with:

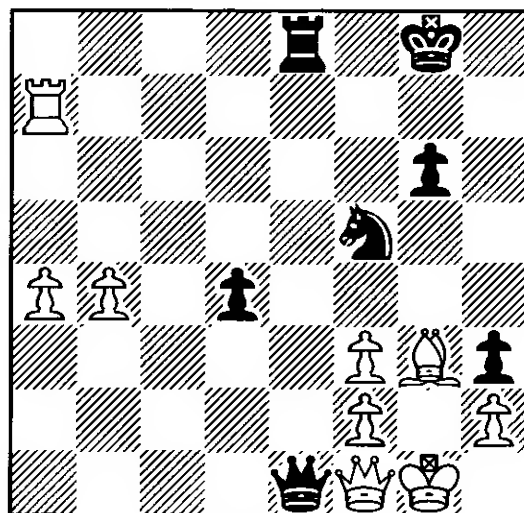
31...h3+!! (10 points)

Black is after the king.

32 ♖g1

32 ♖xh3 loses to 32...♘e3+ 33 ♖h4 ♘g2+! 34 ♖g5 ♗d5+ 35 ♖xg6 ♖e6 mate (5 points).

32...♗e1+ 33 ♗f1



33...♘g3! (3 points)

The cleanest. Also possible was 33...d3 34 ♖d7 d2 and Black wins (2 points). But not 33...♗d2?? when White has a counter-attack with 34 ♗c4+ ♖h8 35 ♙e5+! (1 point) and it is Black who is mated.

34 fxg3

If 34 hxg3 h2+ wins.

34...♗e3+ 0-1

White resigned because of 35 ♖h1 ♗xf3+!

36 ♔g1 ♕e1 (4 points).

Maximum score: 20 points.

Exercise 40

Vaganian-T.L.Petrosian

Moscow 2004

White would be worse were it not for a surprising mate.

35 ♕xd5+!! (10 points)

A wonderful shot which completely destroys Black's position, since if 35...cxd5 36 ♖a7+ ♔f6 37 ♖b6 mate. It is rare that we see mating combinations in the endgame.

35...♔g7 36 ♕b3 ♖b4

There is no escape. If 36...♖dxd4 37 ♕xa4 ♖xa4 38 ♖b6 ♕b5 39 ♖b7+ ♔h6 40 ♖h8 ♖a2+ 41 ♔e3 and White wins.

37 ♖xa6 ♖d3 38 ♖a3 ♖b7 39 ♔e2 ♖xd4

Or 39...♖c3 40 ♔d2 ♖f3 41 ♔c2 and White wins with his extra piece.

40 ♖ba2 1-0

Maximum score: 10 points.

Exercise 41

Zhao Jun-Art.Minasian

Moscow 2004

26...♖e8!! (10 points) 0-1

Let us see why White resigned.

a) 27 ♖xe8 ♕xf2+ 28 ♔h1 (or 28 ♔h2 ♕g1+ 29 ♔h1 ♖g3 mate) 28...♖g3+ 29 ♔h2 ♕g1+ 30 ♔xg3 ♖f2+ 31 ♔g4 f5+ 32 ♔g5 h6 mate (6 points).

b) 27 ♖f1 ♕xf2+! (4 points) 28 ♖xf2 ♖e1+ or 28 ♔h2 ♖e1 and Black wins.

c) 27 ♖e3 ♕xe3 (2 points) 28 ♖a1 ♖e5 (other moves win as well) 29 fxe3 ♖xe3 with a winning attack.

Maximum score: 18 points.

Exercise 42

Lilja-Aagaard

Copenhagen 1992

Black won a pawn with a nice manoeuvre.

16...fxe5 17 fxe5 ♖f5! (3 points) 18 ♖d6 ♖xe5 19 ♖xc8 ♕g5! (4 points)

This was the point. Now White should

have played 20 ♖c2 (3 points) with a lost endgame after 20...♖xc8; instead he self-destructed with:

20 ♖xd7? ♖xb2 (2 points) 21 ♖f1? ♖exe2+ 22 ♔d1 ♖xg2 0-1

Maximum score: 10 points.

Exercise 43

Karpov-Topalov

Dos Hermanas 1994

Karpov decides the game with a nice magnet sacrifice (drawing the black king out).

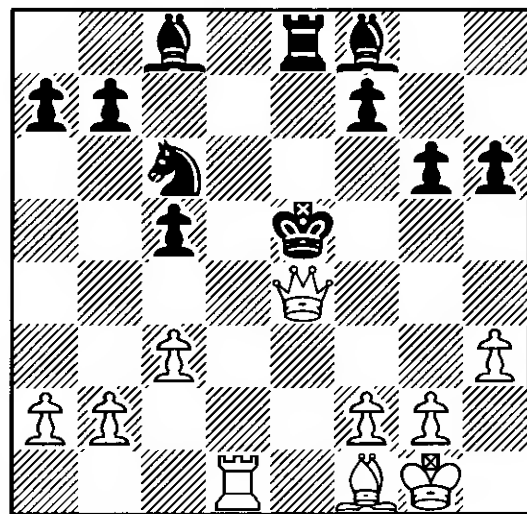
30 ♖f6!! (8 points) 30...♔xf6

30...♖xf3? 31 ♖xe8+ wins.

31 ♕e5+! (2 points) 31...♔xe5

If 31...♔e7 32 ♖f6 mate or 31...♔g5 32 ♕f6 mate.

32 ♖xe4+! (6 points)



The simplest and cleanest win. 32 ♖xf7 is also decisive after 32...♖d8 33 f4+! ♖xf4 34 ♖e1+ ♖e4 35 ♖c7+! ♕d6 36 ♖g7+ ♔f5 37 g4+ ♖xg4+ 38 hxg4+ ♔g5 39 ♕d3 ♕h2+ 40 ♔xh2 ♖xd3 41 ♖e5+ ♖xe5 42 ♖xe5+ etc. Give yourself a bonus 4 points if you calculated it all the way to here. But it would be unnecessarily risky to venture such a complicated variation in an actual game, when there is a simple win available.

32...♔xe4 33 ♖e1+ ♔f5 34 ♖xe8

White is winning. Full points only if you saw this position in your analysis.

34...♕e6 35 ♖xf8 ♕xa2 36 ♖c8 (2 points) 1-0

Black's position is hopeless after 37 ♖c7.
Maximum score: 18 points.

Exercise 44

J.C.Perez-J.M.Bravo
Cuba 1997

This combination is illustrative of several nice themes.

1 ♖xe5!! (8 points)

This prepares the removal of the important defender on f8. 1 ♖fh3? achieves nothing after 1...g6! (2 points).

1...fxe5

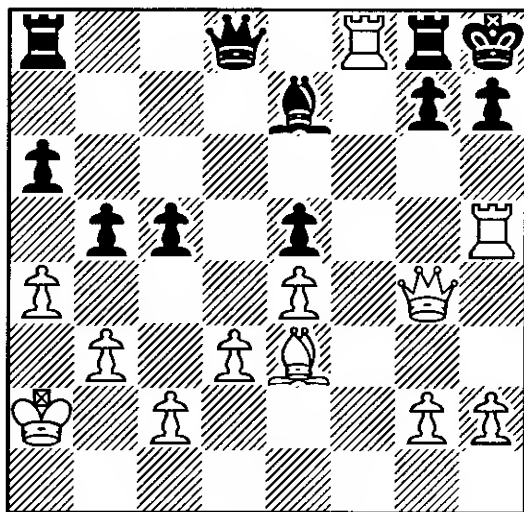
Declining the knight is no better:

a) 1...♗e8 2 ♖xh7+! (2 points) 2...♘h7 (2...♙xh7 3 ♖h3+) 3 ♘g6+ etc.

b) 1...h6 2 ♙xh6! (2 points) 2...gxh6 3 ♘f7+ ♙h7 4 ♖xh6 mate.

c) 1...g6 2 ♘f7+ wins the queen.

2 ♖xf8! (6 points)



2...♖xf8

The main defence. If 2...♗xf8 3 ♖xh7+! ♙xh7 4 ♗h5 mate, while 2...♗d6 loses to many different moves (e.g. 3 ♗f5, 3 ♗h3, 3 ♖f7, 3 ♖ff5) the strongest again being 3 ♖xh7+! ♙xh7 4 ♖f7 (2 points) with forced mate.

3 ♗g6! (2 points) **3...♙g8**

If 3...h6 4 ♙xh6! and mates.

4 ♖xh7 ♖f7 5 ♗h5

and Black is mated.

Maximum score: 24 points.

Exercise 45

Mamedyarov-Timofeev
Moscow 2004

30 ♘g6+!! (8 points)

The beginning of a wonderful combination.

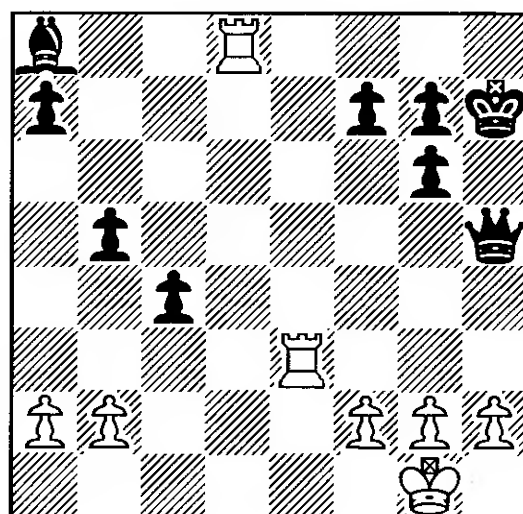
30...hxg6

30...fxg6 31 ♗xd6! ♗xd6 32 ♖xd6 wins the exchange (5 points) or if 30...♙g8? 31 ♖xd6 wins (2 points).

31 ♗h4+ ♗h5

If 31...♙g8 32 ♗xd8+ ♖xd8 33 ♖xd8+ ♙h7 34 ♖h3+! wins (10 points).

32 ♗xd8+! ♖xd8 33 ♖xd8+ ♙h7



34 ♖ee8 (10 points) **1-0**

White wins the queen and bishop to finish a rook up.

Maximum score: 30 points.

Exercise 46

Sedina-Tkeshelashvili
Istanbul 2003

White decided the game with a spectacular queen sacrifice.

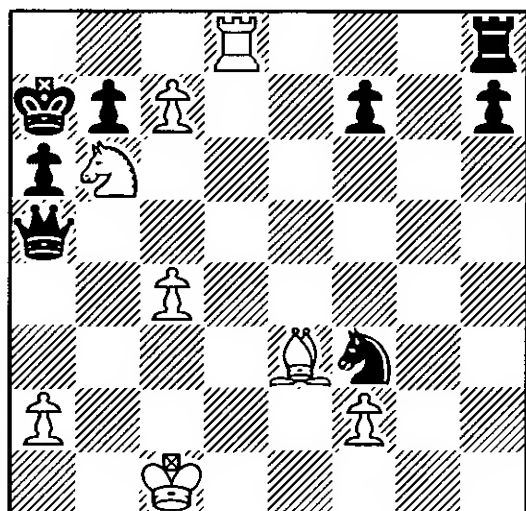
29 ♗c7+!! (4 points) **29...♖xc7 30 dxc7+ ♙a8 31 ♘b6+ ♙a7 32 ♖d8** (6 points)

Perhaps even simpler was 32 ♖d5!? ♗g6 33 ♖d8 (10 points) and the counterplay from the next note is prevented. But this is a computer variation of course.

32...♗a5

Black also loses after the more complex 32...♘d4 (3 points) 33 ♖xd4 ♖g8 34 ♖d8

♖g1+ 35 **♔b2 ♚e5+** 36 **♔c2 ♚f5+** 37 **♔b3 ♚b1+** 38 **♔a3** etc. (7 points).



33 ♖a8+!!

A nice finish.

33...♖xa8 34 ♔c8 mate (10 points).

Maximum score: 30 points.

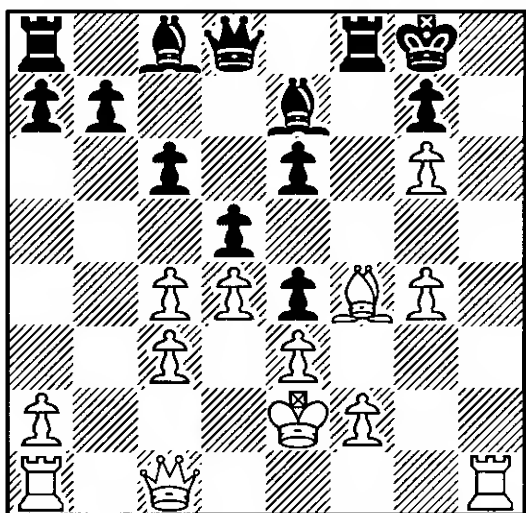
Exercise 47

Aagaard-S.Williams

Hampstead 1998

A classic theme in a new and complex wrapping.

16 ♔g6+!! (10 points) **16...hxg6 17 hxg6+ ♔g8 18 ♚c1! ♚d8**



19 ♔c7!! (10 points)

This is the point. 19 **♖h5?** **♔h4** 20 **♚h1 ♚f6** 21 **♖xh4 ♚xg6** is less clear.

However 19 **♖h8+** (15 points) works well. I just find my win more aesthetic.

19...♖xf2+? (2 points)

This makes life easy. 19...**♔h4!** (5 points) 20 **♔xd8 ♖xf2+** 21 **♔d1 ♔xd8** offered more resistance, but then 22 **♔e1 ♖f3** 23 **♔e2 ♔g5** 24 **♖h7 ♔h6** (24...e5 25 **♚h1**) 25 **♖xh6! gxh6** 26 **♚h1 ♔g7** 27 **g5!** wins, or if 23...e5 24 **♚g1** (threatening **♚h2**) 24...**♔g5** 25 **♚h2 ♖xe3+** 26 **♔f2 ♖f3+** 27 **♔g2 ♔h6** 28 **♚xe5 ♔xg4** 29 **♚e7 ♖af8** 30 **♖xh6** wins.

20 ♔xf2 ♔h4+

If 20...**♚xc7** 21 **♖h8+!** **♔xh8** 22 **♚h1+ ♔h4+** 23 **♚xh4+ ♔g8** 24 **♚h7+ ♔f8** 25 **♚h8+ ♔e7** 26 **♚xg7+ ♔d8** (26...**♔d6** 27 **c5** mate) 27 **♚f8+ ♔d7** 28 **♖h1** and mates.

21 ♔e2 ♚g5 22 ♚g1! (3 points) **22...e5 23 ♚h2!**

Trapping the bishop.

23...♔xg4+ 24 ♔d2 exd4 25 cxd4 dxc4 1-0

Black resigned on noticing that the c7-bishop prevents 26...**♚a5+**.

Maximum score: 25 points.

Exercise 48

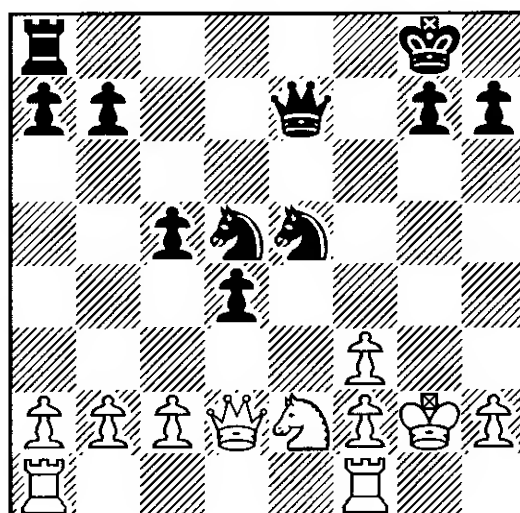
N.N.-L.Nilsson

Denmark 2002

Black wins with a standard sacrifice, though it requires some accurate calculation.

1...♖xf3! (5 points) **2 ♔xe7 ♚xe7 3 gxf3 ♔e5!** (5 points) **4 ♔g2**

Against 4 **♔h1!**? all you need to see is 4...**♚h4!** (2 points) and White has no defence; if 5 **♔g1** (or 5 **♔g2 ♖f8** wins) 5...**♔f4** (intending 6...**♚g5**) 6 **♔e2 ♖f8** wins.



Now Black continued with 4...♖f8? and the game got very complicated.

4...♖f7!? (2 points) was better, e.g. 5 f4 ♖g6+ 6 ♘g3 ♘c4 7 ♖c1 (if 7 ♖d1 ♘de3+ wins) 7...♖f8 8 b3 ♘xf4+ 9 ♔g1 ♖c6 10 f3 ♘e3 and Black has a decisive advantage (2 points).

But even stronger was

4...♘c4! 5 ♖d3 ♖xe2! (10 points) 6 ♖xe2 ♘f4+ 7 ♔h1 ♘xe2

when Black has two huge knights for a passive white rook.

Maximum score: 20 points.

Exercise 49

Egeland-Eckhardt

Oslo 2003 (variation)

Here White wins with a nice twist.

41 ♖d1! (3 points).

If 41 ♖c1 ♘b4 42 ♘d7 ♘d5 and Black is doing better.

41...♘e3 42 c7!! (7 points)

With the threat of 43 ♖d8+.

42...♘xd1

42...♘d5 43 ♖xd5 exd5 44 ♘c6 is similar.

43 ♘c6 (2 points)

White is winning because of the threat of 44 ♘b8! and the c-pawn queens. It does not help to play 43...♖e8 because we have the same theme with 44 ♘d8!, while 43...♖c8 of course loses to 44 ♘e7+ etc.

Maximum score: 12 points.

Exercise 50

Fabri-Hardicsay

Hungary 1981

1...♘h5+!! (8 points)

A fantastic move which drags the white queen away from the defence of f2.

2 ♖xh5

White has no choice. If 2 ♔h4 ♖d4+ 3 ♖g4 ♖f6+ 4 ♔xh5 g6+ and mates (4 points).

2...♖f2+

2...♖f2? does not work because of 3 ♖f3! ♖xf3+ 4 ♖xf3 and Black should not win against the best defence (4 points).

3 ♔h2

If 3 ♔g4 ♖f4 mate (4 points).

3...♖e1!! (10 points)

The point! Black has switched his rook and queen round on the back rank and mate is now inevitable.

Thanks to Mark Dvoretsky for showing me this exercise.

Maximum score: 22 points.

Exercise 51

De Firmian-Holst

Copenhagen 2003

A position that requires clarity of thought. De Firmian did not fully concentrate and played

22 ♘xh7??

De Firmian must have missed Black's 24th move.

Instead 22 ♖xg4!? fxe4 23 ♖xg4 (5 points) gives White more than sufficient compensation for the exchange, but it is not strongest.

The computer suggests another variation that wins on the spot: 22 ♘xe6! (1 point) and then if 22...♔f6 23 ♔xf5 (23 ♖xg4 also works) 23...♔xb2 24 ♖xg4 wins. Black's best try is 22...♔h4 (3 points) when standard thinking leads to something like 23 ♘xc7? ♖xe2 24 ♖c3 ♖dd2 (2 points) and Black wins; instead the true desperado 23 ♖xg4!! (15 points) would have won the game: 23...fxg4 24 ♘xc7 ♖e2 25 ♖xg4 and White emerges with a decisive material advantage.

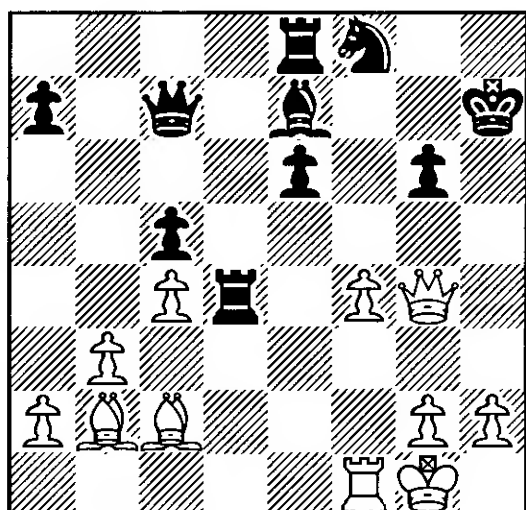
22...♔xh7

After 22...♘h7? White wins in a nice fashion: 23 ♖xg4! fxe4 24 ♖xe6+ ♔f8 25 ♔g7+! (5 points) 25...♔xg7 26 ♖xg6+ ♔f8 27 ♖h6+ ♔f7 28 ♖xh7+ ♔e6 29 ♖f5+ ♔d6 30 ♖d5 mate; 28...♔f8 29 ♖h6+ ♔f7 30 ♔g6+ ♔e6 31 ♔xe8+ ♔f6 32 ♖e1+ also leads to mate.

23 ♖xg4 fxe4 24 ♖xg4

Threatening 25 ♖h5+ ♔g8 26 ♖h8+ and mates. But Black has a resource to turn the tables.

24...♖d4!! (10 points)



Blocking off the bishop on b2 and saving the black king from harassment.

25 h4

25 ♖h5+ does nothing after 25...♔g7.

25...♙f6 26 h5 ♖h6?

Stronger was 26...♖f7!, after which White's attack should be over.

27 hxg6?

This loses all control White had over g6, the most dangerous square near the black king. 27 ♙c1! gave more counterplay, when White would still be able to cast doubt on the result.

27...♔g7

Now the attack is finished.

28 ♖h2 ♘d7 29 ♙xd4 ♙xd4 30 ♔g3 ♘f6 31 ♖h3 e5 32 ♙f3 exf4 33 ♙e4 ♖xe4 0-1

Maximum score: 27 points.

Exercise 52

Opening analysis

Analysing a variation of the Queen's Indian Defence I found the following nice drawing line.

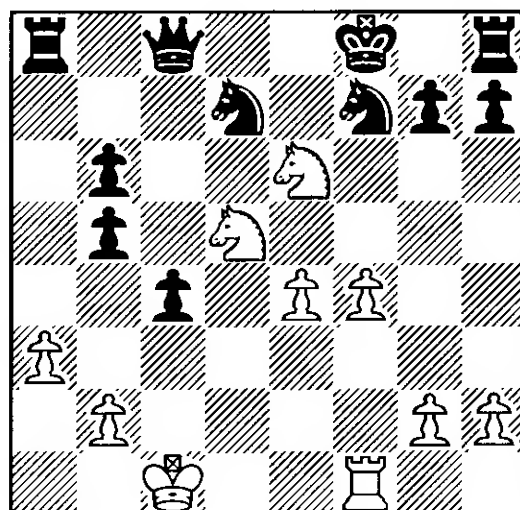
18 ♖xe5+! (4 points) 18...♙e7 19 ♘d5!! (10 points)

The idea starts to unfold.

19...axb5 20 ♖xe7+ ♙f8 21 ♖f7+!! (10 points)

Not so surprising now there is nothing else. But earlier it could have been hard to see.

21...♘xf7 22 ♘e6+



22...♔e8

Not 22...♔g8? 23 ♘e7 mate (4 points).

23 ♘xg7+ ♔d8 24 ♘e6+ ♔e8 with perpetual check (2 points).

Maximum score: 30 points.

Exercise 53

Taimanov-Kuzmin

USSR 1950

This classic combination is one of my favourites.

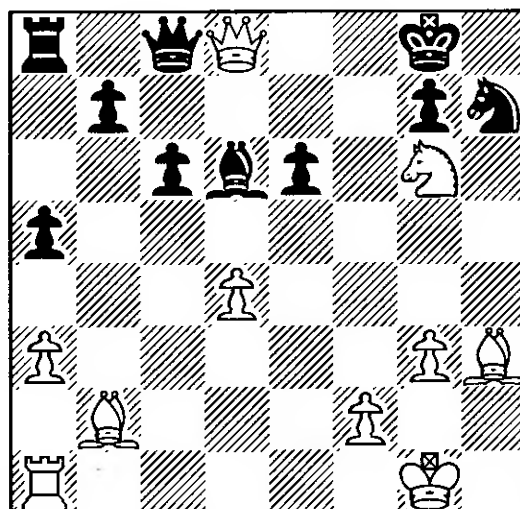
1 ♘g6! (8 points)

1 ♙xe6? fxe6 is not clear.

1...♘h7

If 1...fxg6 2 ♙xe6+ winning the queen.

2 ♖xe6! fxe6 3 ♖xd8+! 1-0



Black resigned due to 3...♖xd8 4 ♙xe6 mate (20 points).

Maximum score: 28 points.

Exercise 54

Short-Dreev

Reykjavik (rapid) 2004

White wins because of the theme I called 'big pieces in trouble' in *Excelling at Combinational Play*, a theme we see more often than we might expect.

34 ♖f6+! (2 points)

In the game Short actually played 34 ♖g2, which was unclear although he later won.

34...♗xf6 35 ♜h4! (8 points) **35...♖xh4 36 gxh4 ♜g8+** **37 ♔h2!** (10 points)

37 ♔f2? ♗g4+ 38 ♔e2 ♗h2 (2 points) would make the win less obvious, while 37 ♔h1 ♗e4 38 ♜g1 gives Black the extra option of 38...♜h8!? (2 points) which White may as well prevent.

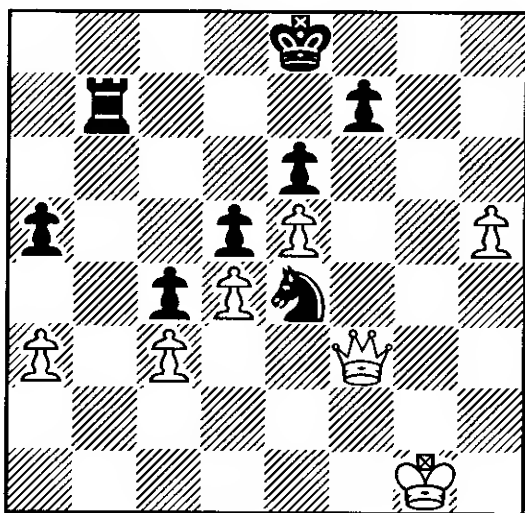
37...♗e4 38 ♜g1 (7 points)

White has a winning endgame, but it should have been seen that Black does not have a lot of counterplay here. The rooks are exchanged so that the h-pawn becomes as strong as possible.

38...♜xg1

38...♜h8 would now be met simply by 39 ♔h3 improving the position.

39 ♔xg1 b4 40 h5 bxa3 41 bxa3 ♜b7



42 ♖g2!

Both shielding the king and assisting the passed pawn.

42...♔f8 43 h6

and White is winning.

Maximum score: 27 points.

Exercise 55

B.Martinez-De la Paz

Manikaragua 1998 (manipulated:
the author has added a pawn at a3)

A standard but pretty mating combination.

1...♖xb3!! (10 points) **2 ♖xb3 ♗cxd4 3 exd4 ♗xd4**

With the idea of 4...♗e2+ and 5...♜h8 mate (5 points).

4 ♖c2 ♗f3+!! (5 points) **0-1**

White resigned because of 5 gxf3 ♜g8+ 6 ♔h2 ♜h8+ 7 ♔g3 ♜dg8 mate.

Maximum score: 20 points

Exercise 56

M.Carlsen-Harestad

Copenhagen 2003

To see this combination all the way to the end is not so simple. Hats off to anyone who has achieved this!

34 e5!? (15 points)

Opening the diagonal for the c2-bishop.

34...dxe5

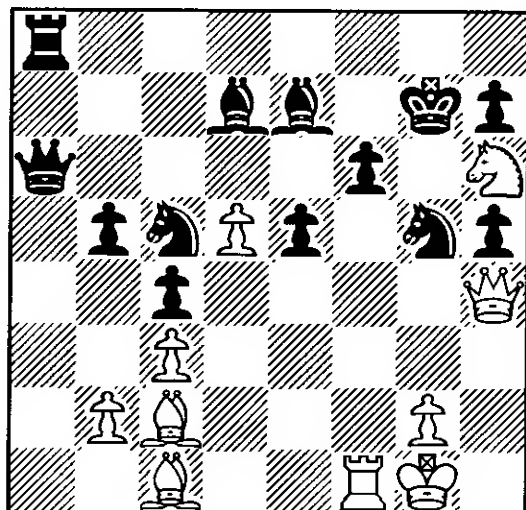
There is no alternative; if 34...♜f8 35 exf6+ ♜xf6 36 ♜xg5 and White wins (5 points).

35 ♗h5+!! (10 points)

The point of the combination.

35...gxh5

If 35...♔h8 36 ♗xf6 ♜xf6 37 ♜xf6 ♖xf6 38 ♜xg5 ♜a1+ 39 ♔h2 and Black will have to part with his queen (5 points).



36 ♖xg5+!

Now it is no longer so difficult.

36...fxg5 37 ♖f7+ ♔xh6 38 ♖xh7 mate (5 points).

Despite the obvious attractive nature of the combination, White actually had a simpler winning move: 34 ♔e3! (35 points) intending 35 ♔d4 and 36 ♖xg5. Seeing that Black has no satisfactory defence is sufficient to obtain full points here.

Maximum score: 35 points.

Solutions to pawn endings

(Maximum score for this section: 150 points)

Exercise 57

J.Urban

Sachové Umenie 1972

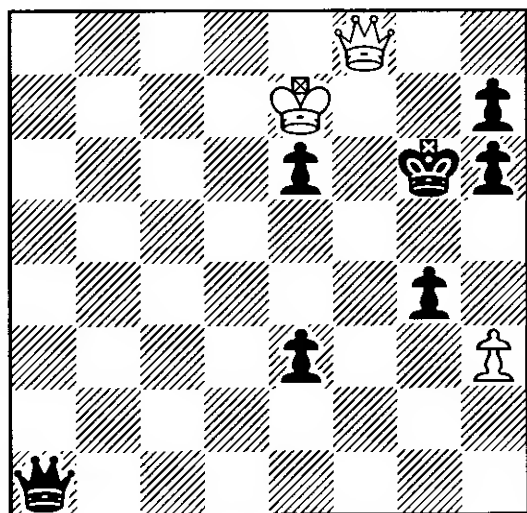
1 ♔d6! (3 points)

White has no other way to create counterplay. 1 ♔xe6? e2! would be rather embarrassing, and 1 f7 ♔g7 2 ♔xe6 ♔f8 is no better.

1...a2

If 1...♔g8 2 ♔e7 wins.

2 f7 ♔g7 3 ♔e7 a1♖ 4 f8♖+ ♔g6



5 ♖f7+!! (6 points)

This sneaky move is the core of the solution. If instead 5 ♖g8+? ♖g7+ and Black wins.

5...♔g5 6 ♖g8+

Now the black queen cannot interpose, so the white queen can roam freely.

6...♔f4

If 6...♔h5 7 ♖xg4 mate.

7 ♖xg4+ ♔e5 8 ♖g7+ (3 points) 1-0

Maximum score: 12 points.

Exercise 58

V.Kovalenko

Sachové Umenie 1979

This is the most surreal exercise in the book, but I think it is good fun, so I stepped away from my usual criterion that positions should at least have the possibility of arising in an actual game.

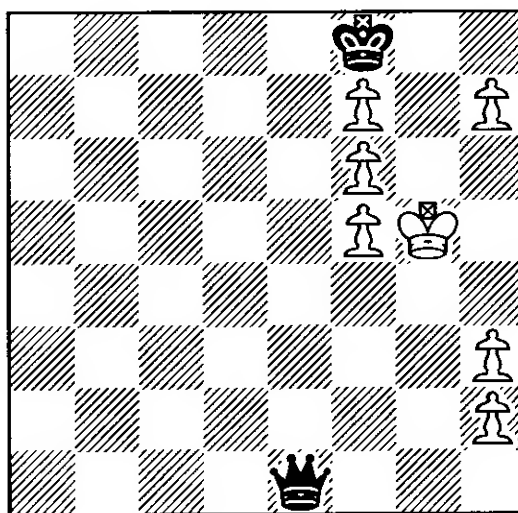
1 ♔g5! (4 points)

White's only chance of a successful defence is tied to the advance of the h-pawns. The only question is where to put the king. The alternative 1 ♔g6 does not work out as after 1...e2 2 h6 e1♖ 3 h7 ♖h4 4 h8♖+ ♖xh8 5 h4 ♖xh4 the remaining h-pawn can still move. White is therefore required to lose a tempo, so that Black is forced to take one of the h-pawns, thus giving rise to an unusual stalemate.

1...e2

White also draws after 1...♔xf7 2 h6 e2 3 h7 e1♖ 4 h8♖, although here it is more important that Black can draw. The quickest way is 4...♖g3+ 5 hxg3 stalemate.

2 h6 e1♖ 3 h7

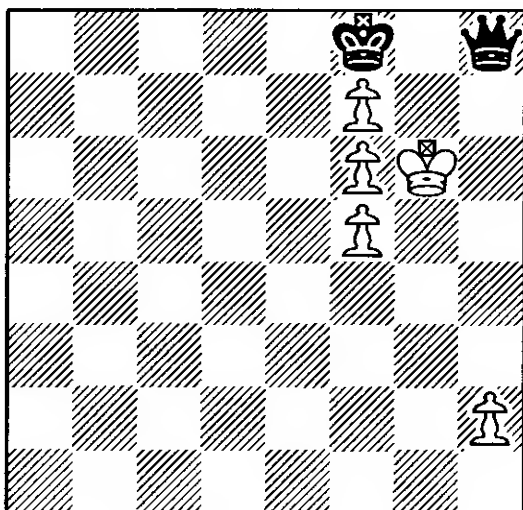


3...♖e3+

With 3...♖h4+ prevented by the white king, Black can only stop the h7-pawn by capturing the h3-pawn. Other checks do not

improve Black's position: If 3...♖d2+ 4 ♔h5 ♖e2+ 5 ♔g5 ♖g2+ 6 ♔h4! ♖e4+ 7 ♔g5 ♖e3+ 8 ♔g6 and Black has made no progress (2 points), while 3...♖g1+!? is best met with 4 ♔h4! (2 points), but not 4 ♔h6?? ♔xf7! 5 h8♖ ♖e3+! and Black wins.

4 ♔g6 ♖xh3 5 h8♖+ ♖xh8



6 h4! (2 points) 6...♖xh4 stalemate.

If instead 6...♖xf6+ 7 ♔xf6 and it is Black who is stalemated!

Maximum score: 10 points.

Exercise 59

Z.Jelinek

Ceskoslovensky Republika 1932

White needs to keep the black king in a stalemate position and then promote his own h-pawn with checkmate.

1 ♔c1! (5 points)

Black would draw after all others, e.g. 1 g3 h5! (not 1...f4? 2 g4 f3 3 g5 h5 4 g6 h4 5 g7 h3 6 ♔b3! ♔b1 7 g8♖ a1♖ 8 ♖g1 mate) 2 h4 (or 2 h3 h4) 2...f4 3 g4 f3! and stalemate.

1...f4

1...h6 2 h3! and 1...h5 2 h4! merely transpose and do not change anything.

2 ♔c2!

White has now gained time so Black cannot avoid the inevitable.

2...f3

Or 2...h5 3 h4! transposing again.

3 g4! (3 points)

Only this move wins.

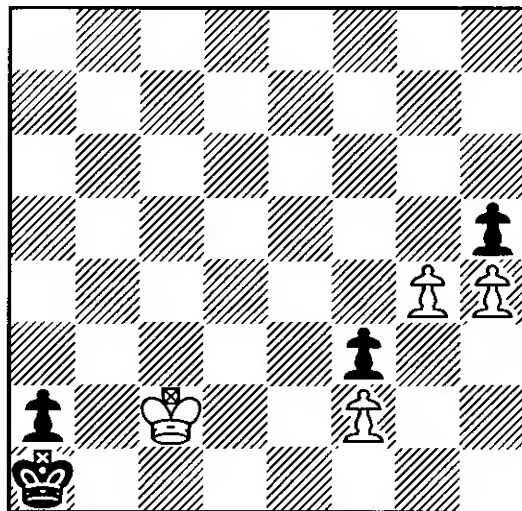
3...h6

3...h5 4 h4! and wins as in the main line.

4 h3!

Zugzwang. Not 4 h4? h5 and White cannot win (5 ♔c1?? would even lose).

4...h5 5 h4! (4 points)



This was the zugzwang position White was aiming for.

5...hxg4 6 h5 g3 7 h6 g2 8 h7 g1♖ 9 h8♖+ 1-0

Maximum score: 12 points.

Exercise 60

Kovalenko

Schakend Nederland 1995

Another improbable position leading to interesting play. White has only one way to proceed, so this exercise is all about visualisation and awareness of the opponent's counter-chances.

1 a5 e5 2 a6 e4 3 a7 e5!

Setting up a stalemate trap.

4 a8♖! (3 points).

Promotion to queen (or bishop) creates a stalemate, and 4 a8♘ or king moves lose. So this is the only way to play for a win.

4...e3

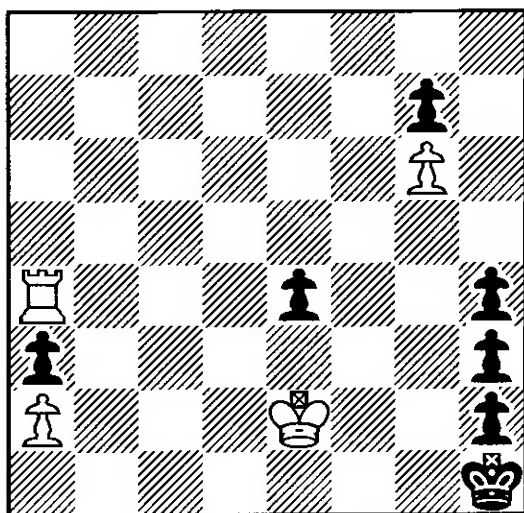
Intending 5...e2+.

5 ♖a4!! (3 points)

A really difficult move in this exercise.

5...e2+ 6 ♔xe2 e4

Or 6...♔g2 7 ♖g4+ ♔h1 8 ♔f3! (the fastest win) 8...e4+ 9 ♖xe4 ♔g1 10 ♖e1 mate.



7 ♖f1!! (5 points)

It is amazing that only this move wins.

7...e3 8 ♜e4! (1 point)

Not 8 ♜b4 e2+ 9 ♔xe2 ♔g2 10 ♜g4+ ♔h1 and White cannot make progress.

8...e2+ 9 ♔f2! e1♔+ 10 ♜xe1 mate

Maximum score: 12 points.

Exercise 61

F.Lazard

American Chess Bulletin 1916

1 ♔d6! (3 points)

There are no credible alternatives.

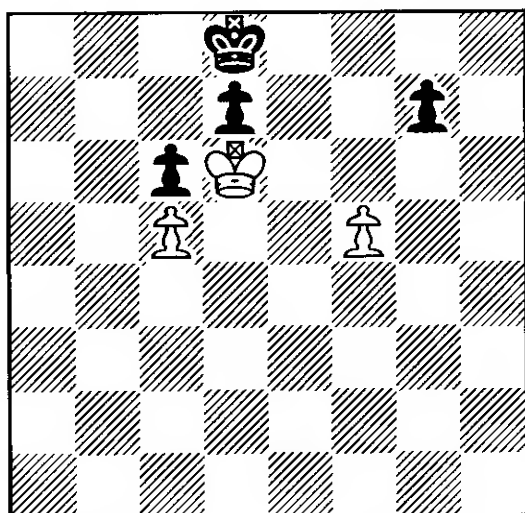
1...♔d8 2 f5! (3 points)

It is important to keep the g-pawn under control.

2...♔e8 3 c3!! (4 points).

This amazing time of loss creates the situation White needs in order to save the game.

3...♔d8 4 c4 ♔e8 5 c5 ♔d8



6 f6! gxf6 stalemate.

Maximum score: 10 points.

Exercise 62

J.Moravec

28 Rijen 1925

This exercise can be solved either by calculating all lines through to the end or simply by comparison.

1 ♔d5!! (10 points)

This is the only square. White needs to approach the f-pawn to prevent Black from taking the h2-pawn first. So there are only three candidates. 1 ♔d5 is the only one which allows White to queen his pawn and to keep it afterwards. The lines are rather simple.

a) 1 ♔e5 ♔g2! 2 h4 ♔xf2 3 h5 ♔g2 4 h6 f2 5 h7 f1♔ 6 h8♔ ♔a1+! and Black wins.

b) 1 ♔f5 ♔g2 2 h4 ♔xf2 3 h5 ♔g2 4 h6 f2 5 h7 f1♔+ 6 ♔g6 ♔f8 and Black wins.

1...♔g2 2 h4 ♔xf2 3 h5 ♔g2 4 h6 f2 5 h7 f1♔ 6 h8♔ with a draw.

Maximum score: 10 points.

Exercise 63

E.Vlasak

Sachové Umenie 1974.

1 ♔c4! (6 points)

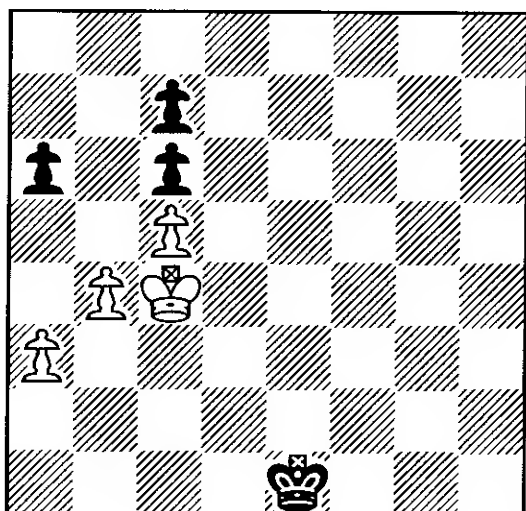
1 ♔a4? allows the black king to approach: 1...♔d2 2 ♔a5 (if 2 b5 ♔c3! and White needs to think about making a draw, which he can do most simply with 3 b6! axb6 4 cxb6 cxb6 stalemate) 2...♔c3 3 ♔a6 ♔b3 4 ♔b7 ♔xa3 5 ♔xc7 ♔xb4 6 ♔xc6 a5 and Black makes a draw.

1...a6

If now 1...♔d2 White wins with 2 b5 cxb5+ (or 2...♔e3 3 bxc6 ♔e4 4 ♔b5 ♔d5 5 a4 and Black is in zugzwang) 3 ♔xb5 ♔c3 4 a4 (4 c6 also wins) 4...a5 (or 4...♔d4 5 a5 ♔d5 6 ♔a6 ♔xc5 7 ♔xa7 and White wins) 5 ♔xa5 (5 c6 still wins as well) 5...♔c4 6 c6! ♔c5 7 ♔a6 ♔xc6 8 a5 and wins (3 points).

After Black has weakened his queenside with his last move, White changes course and

attacks via the a-file.



2 ♖b3!! (4 points)

Black is in time after 2 ♖d4 ♖d2 3 ♖e5 ♖c3 4 ♖e6 ♖b3 5 ♖d7 ♖xa3 6 ♖xc7 ♖xb4 7 ♖xc6 a5 with a draw.

2...♖d2 3 ♖a4 ♖c3 4 ♖a5 ♖b2!

An interesting defensive try. After 4...♖b3 5 a4 ♖a3 (5...♖c4 6 ♖xa6 ♖xb4 7 a5 ♖a4 8 ♖b7 ♖xa5 9 ♖xc7 ♖b5 10 ♖d6 wins as well) 6 b5! axb5 7 axb5 cxb5 8 ♖xb5 ♖b3 9 c6! White wins as in the main line.

5 ♖xa6! (4 points)

The only winning move. It is all about comparison and the location of the black king. If instead 5 a4? ♖b3! and White would be in zugzwang. The point is that 6 b5 axb5 7 axb5 cxb5 8 ♖xb5 ♖c3! no longer loses for Black, and after 9 c6 ♖d4 White should be careful since if 10 ♖a6?? ♖c5! 11 ♖b7 ♖d6 and Black wins.

5...♖xa3 6 b5 cxb5 7 ♖xb5 ♖b3 8 c6! (3 points)

Now the black king cannot make it to d6, and White wins easily with:

8...♖c3 9 ♖a6 ♖d4 10 ♖b7 and so on.

Maximum score: 20 points.

Exercise 64

J.Aagaard

Original 2004

Based on two incorrect studies (I will not mention the composers), this is a small composition of my own. It should not be so dif-

ficult to solve. The main agenda here is visualisation and White's 6th move.

1 e6! (2 points)

This is the only move. After 1 ♖b2? ♖f7 Black wins, e.g. 2 ♖a3 ♖e6 3 ♖b2 ♖d5 4 ♖a3 ♖c5 5 g6 ♖b5 6 ♖b2 ♖b4 7 e6 a3+ 8 ♖b1 ♖c3 9 e7 a2+ 10 ♖a1 ♖c2 11 e8♖ b2+ 12 ♖xa2 b1♖+ 13 ♖a3 ♖b3 mate.

1...b2!

This is forced. Black cannot allow White to queen freely, so he is playing for stalemate.

2 ♖xb2 a3+ 3 ♖a2! (4 points)

Not 3 ♖xa3? ♖h5 4 e7 g6 with stalemate next move.

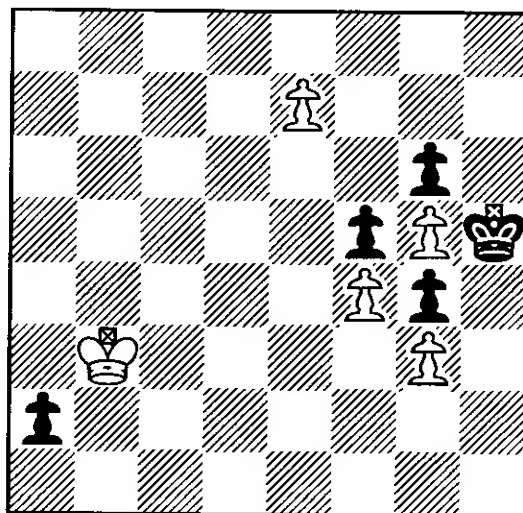
3...♖h5!

Black still needs to play for this defence.

4 e7 g6 5 ♖b3! (4 points)

All other moves lead to stalemate again.

5...a2



6 e8♖! (5 points).

Only this wins. After 6 e8♖ a1♖ White does not have a winning check, and Black will follow with something like 7...♖a2+! to make the draw imminent.

6...a1♖ 7 ♖f6+ ♖xf6 8 gxf6 ♖h6 9 ♖c4

Black cannot stop the f-pawn now. White wins after:

9...♖h7 10 ♖d5 ♖g8 11 ♖e6 ♖f8 12 f7 g5

Or 12...♖g7 13 ♖e7.

13 fxf6 f4 14 ♖f6 f3 15 g6 f2 16 g7 mate.

Maximum score: 15 points.

Exercise 65

N.Grigoriev

Shakmatnoe Tvorchestvo Grigorieva 1954

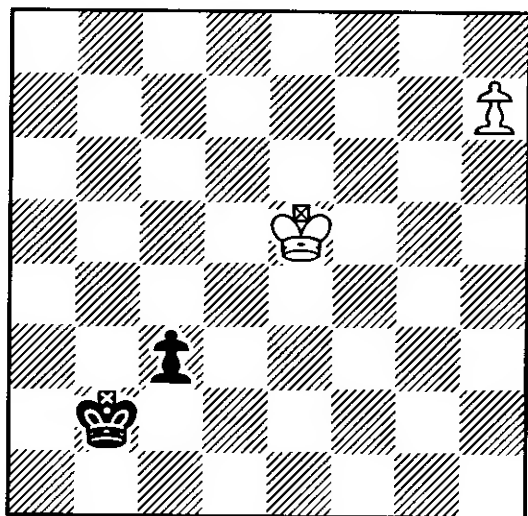
This simple position is winning only through a very shrewd manoeuvre. But even after the manoeuvre has been found White must find the correct way to execute it.

1 ♖e4! (6 points)

Planning to meet 1...c5 with 2 ♔d5!.

The pawn race with 1 h4? c5 2 h5 c4 3 h6 c3 4 h7 c2 5 h8 ♖+ ♔b1 is a book draw.

1 ♖e5? looks similar, but Black can use the Reti trick and move his king to the king-side with 1...♔c3!! 2 ♔d5 c6+ 3 ♖xc6 ♔d4 4 ♔d6 ♖e4 and White cannot win, while if 2 h4 c5 3 h5 c4 4 h6 ♔b2 5 h7 c3



6 h8 ♖, because of the unhappy position of the white king on the long diagonal, Black can again reach the book draw after 6...c2 7 ♔d5+ ♔b1.

1...♔b3

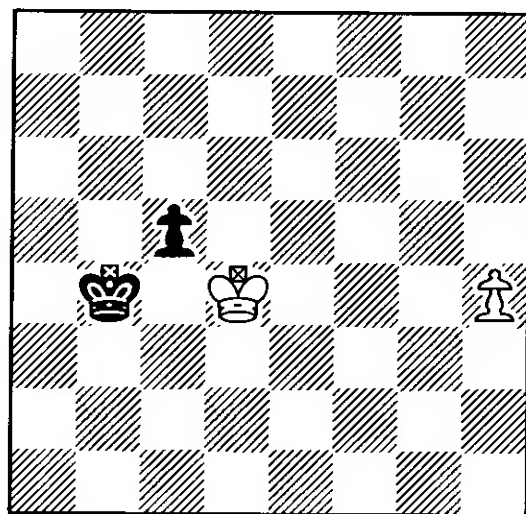
a) 1...♔c3 now loses to 2 h4! c5 3 h5! c4 4 h6 ♔b2 (if 4...♔b3 5 h7 c3 6 h8 ♖ c2 7 ♖a1 wins, or 4...♔d2 5 h7 c3 6 h8 ♖ c2 7 ♖b2 ♔d1 8 ♔d3 and Black is soon mated, 8...c1 ♖ 9 ♖e2 mate is the most obvious) 5 h7 c3 6 h8 ♖ and this time the black pawn is pinned.

b) 1...c5 2 ♔d5 ♔c3 3 ♖xc5! (not 3 h4? c4 and Black makes a draw) 3...♔d3 4 ♔d5! (the white king is cutting off the black king) 4...♔e3 5 ♖e5 ♔f3 6 ♖f5 and White wins (5 points).

2 ♔d4!! (5 points).

The only winning move. After 2 ♔d5? Black draws with 2...♔b4! 3 h4 (or 3 ♖c6 ♔c4 with a draw) 3...c5 and he is in time.

2...♔b4 3 h4 c5+



4 ♖e3!! (8 points)

This way White wins a tempo. If instead 4 ♔d3? ♔b3 5 ♔d2 ♔b2 and White cannot win.

4...♔b3 5 h5 c4 6 h6 c3 7 h7 c2 8 ♔d2!

Forcing Black into the check, otherwise he loses his pawn.

8...♔b2 9 h8 ♖+ 1-0

Maximum score: 24 points.

Exercise 66

N.Grigoriev

Unknown first publication 1933

This is one of my all time favourite studies. I like the simplicity of pawn endings and the feeling of domination in general.

1 ♖a6! (5 points)

Domination and opposition are the two themes of this endgame. White wants to take the black f-pawn with Black having the opposition. This is achieved through domination of the black king. Not 1 b6? ♔b7! and Black makes an immediate draw.

1...♔b8 2 g3! (5 points)

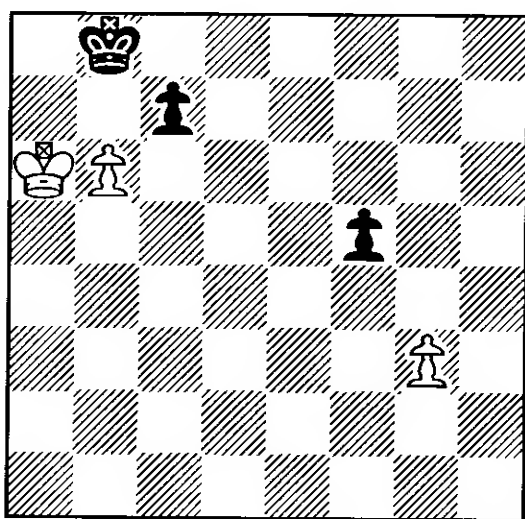
White needs to play this particular move. After 2 b6? Black draws by 2...♔c8!! (2 points) 3 b7+ ♔b8 4 g3 c5 5 ♔b5 ♖xb7 6 ♖xc5 ♔c7 7 ♔d5 f4! 8 gxf4 ♔d7 and Black has the opposition.

2...♔a8!

2...♔c8 loses to 3 ♔a7 ♔d8 4 ♔b8 ♔d7 5 ♔b7 ♔d8 (or 5...♔d6 6 ♔c8!) 6 ♔c6 ♔c8 7 ♔d5 ♔b7 8 ♔e5 ♔b6 9 ♔xf5 ♔xb5 10 g4 c5 11 g5 c4 12 ♔e4! (not 12 ♔f4? c3 13 ♔e3 ♔b4 14 g6 ♔a3!) 12...♔b4 13 g6 c3 14 ♔d3 ♔b3 15 g7 c2 16 g8♚+ etc.

3 b6! (3 points) 3...♔b8!

3...cxb6 loses without a fight.



4 ♔b5!! (5 points)

This time-wasting move is fantastic. Instead 4 b7? c5 5 ♔b5 ♔xb7 6 ♔xc5 ♔c7 7 ♔d5 f4! is a draw again.

4...♔b7 5 bxc7! (3 points) 5...♔xc7 6 ♔c5 ♔d8!

Black tries to get the opposition, but:

7 ♔d6!! (2 points)

White will not allow it. Not 7 ♔d4? f4 8 gxf4 ♔e8 9 ♔e4 ♔f8! and White cannot retain the distant opposition. Now White wins easily.

7...♔e8 8 ♔e5 f4 9 ♔xf4 ♔f7 10 ♔g5 ♔g7 11 g4 ♔f7 12 ♔h6 and so on.

Maximum score: 25 points.

Solutions to Studies

(Maximum score for this section: 500 points)

All the studies bar one were found in the brilliant *Study Database 2000*, edited by Harold van der Heijden, which can be bought from ChessBase. Exercise 68 was taken from John Nunn's *Tactical Endgames*.

Exercise 67

G.Lolli

Osservazioni Teorico-Prattiche sopra il Giuoco degli Scacchi 1792

1 ♔xe5! (2 points)

Not 1 d7?? ♔d5 2 ♔d1 ♔xd7 and Black wins easily.

1...d2 2 ♔d5!! (6 points)

Without this move White would lose.

2...♔xd5 3 d7 d1♚

3...♔d4 4 d8♚+ ♔c3 does not work either. Only a lone c-pawn and the a-pawn can occasionally draw (1 point).

4 d8♚+ 1-0

Maximum score: 9 points.

Exercise 68

Vesely-Antos

USSR 1968

The point of the exercise is that the white knight will have to go to the queenside to stop the pawn. In order to win the game White must first force the black king out of the corner. He has only one way to do this:

1 ♔f7! (6 points) 1...a4

The only move. 1...♔h7 probably loses to all legal moves. The easiest way for White to win is by 2 ♔e6 a4 3 ♔xg7 a3 4 ♔f5 a2 5 g6+ ♔h8 6 g7+ ♔h7 7 g8♚ mate.

2 ♔g6+! (4 points) 2...♔h7 3 ♔e5 a3 4 g6+ ♔h6

If 4...♔h8 5 ♔f8! a2 6 ♔f7 mate.

5 ♔g4+ ♔g5 6 ♔e3 and White wins (3 points).

Maximum score: 13 points.

Exercise 69

V.Platov & P.Bobrov

Shakmatno Obozrenji 1909

1 ♔b2

With the threat of 2 ♔c5 mate (4 points) this is the only serious move.

1...c5

If 1...♚f8 2 ♔xc7 b3 3 cxb3+ ♔b4 4 ♔a6 mate.

2 ♔xe6! (2 points) 2...♚xa6

Or 2...♖c6 3 ♔d7! and White wins, but not 3 ♜xc5+?? when Black escapes with 3...♖b5 4 ♔d7 ♖xc5 and wins.

3 ♔d7+ ♖b5 4 e6! (3 points) **1-0**

Black cannot reach the passed pawn.

Maximum score: 9 points.

Exercise 70

P.Stamma

Essai sur le Jeu des Echecs 1792

1 ♔e1+ ♖b1 2 ♔c1!! (6 points).

This move must be found to solve the exercise. Black is now in zugzwang.

2...♔xc1+

2...h5 3 gxf5 just transposes.

3 ♖xc1

The position now resembles Exercise 59.

3...h5 4 gxf5 g4 5 h6 g3 6 h7 g2 7 h8♖ mate (2 points).

Maximum score: 8 points.

Exercise 71

P.Stamma

Essai sur le Jeu des Echecs 1792

1 c8♖+! (4 points).

Only in this way can White win (although 1 c8♔+! is just as good of course).

The exercise is all about seeing the opponent's opportunities. Thus 1 ♖b8? would lose to the brilliant 1...♔c8!! 2 ♔xc8 a2 and Black wins (4 points).

1...♔xc8 2 ♔c7+ 1-0

Now it is a walk in the park.

Maximum score: 8 points.

Exercise 72

A.Troitzky

Eskilstuna Kuriren 1917

1 gxf5 (2 points)

This is both the natural move and a pleasure to play.

1...♖f5

If 1...♔d2 2 ♔g7 ♖f5 3 ♜d4+! wins the black bishop, either for the pawn or with a knight fork on f3.

2 ♜d4+ (2 points) 2...♖g5

If 2...♖f6 3 ♜c6+.

3 ♖b5!! (7 points)

The black bishop is trapped! This is the point of the study.

3...♔d8

Similarly if 3...♔c7 4 ♜e6+, or 3...♔d2 (or 3...♔e1) 4 ♜f3+.

4 ♜e6+ (1 point) 1-0

Maximum score: 12 points.

Exercise 73

M.Palmer

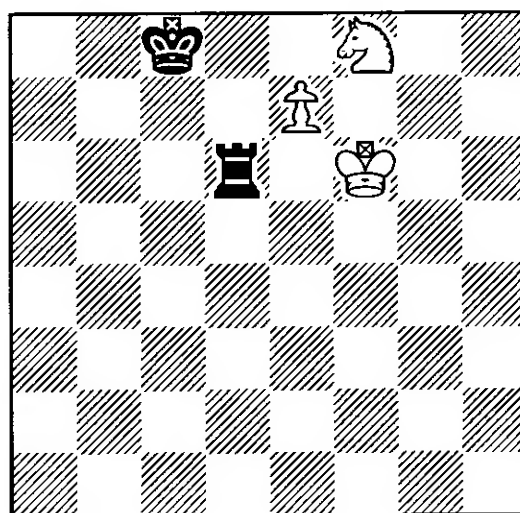
Iowa News 1917

White of course wants to queen his pawn without allowing Black to sacrifice his rook for it. This is achieved through a nice mutual zugzwang.

1 e7! (5 points) 1...♔d6+!

It was necessary to foresee this check in order to solve the exercise, but maybe not in order to play 1 e7 in a practical game. This is the problem with solving exercises in a book rather than working with a trainer or an interactive computer program.

Other moves loses easily: 1...♔e4 2 ♜e6 ♜d7 3 ♜c5+ and White wins, or 1...♔d8 2 ♖f7! and Black is in zugzwang (3 points).



2 ♖g7!! (8 points)

Only this triangulation wins. After 2 ♖f7 ♔d8! White is in zugzwang and cannot prevent both ...♔e8 and ...♔d7 on the next move, after which Black makes a draw.

2...♔d8 3 ♖f7!

Now Black is in zugzwang.

3...♔c7 4 ♖e6+

and White wins.

Maximum score: 16 points.

Exercise 74

E.Pogosiants

Shakhmaty v SSSR 1964

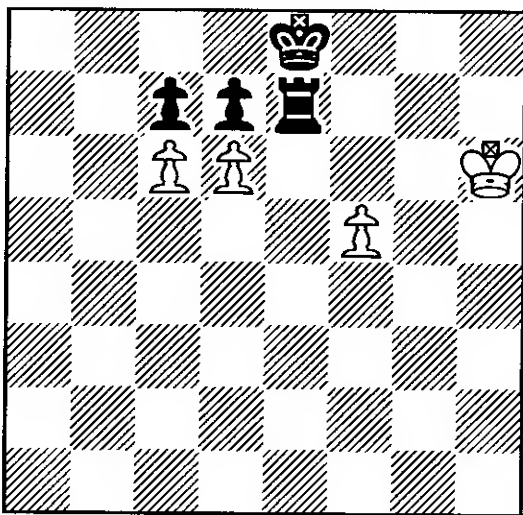
1 ♖e5+! (2 points)

Not 1 ♔xg7? ♖e7+ 2 ♔g6 ♖f7+ and Black makes a draw.

1...♖e7 2 ♖xe7+! (4 points)

Only this surprising exchange wins the game. If instead 2 ♖xg7? ♖h4+ 3 ♔g6 ♖g4+ 4 ♔f6 ♖d4+ with perpetual check, or 2 cxd7+ ♔d8!! 3 ♖xg7 ♖h4+ 4 ♔g6 ♖g4+ when Black either has perpetual again or else wins the f-pawn and can safely exchange into a drawn pawn ending.

2...♖xe7 3 d6!! (6 points)



This magical move exploits the unhappy placement of the black pieces. This is what studies are all about – that and tactics...

3...♖f7!? (6 points)

Did you see this defensive try? You should have. Otherwise it was pure luck that you would win rather than lose a seemingly drawn position. If instead 3...cxd6 4 c7 wins easily, or 3...dxc6 4 dxe7 ♔f7!? 5 e8♖+ ♔xe8 6 ♔g7 and White wins.

4 dxc7 ♖f6+ 5 ♔g7 ♖xc6 6 f6

and one of the white pawns queens.

Maximum score: 18 points.

Exercise 75

E.Antohi

Revista de Romana de Sah 1954 (from move 4 in a study which had a minor flaw in the beginning)

1 g8♖+! (3 points)

Any other promotion and Black has 1...♖h4 mate.

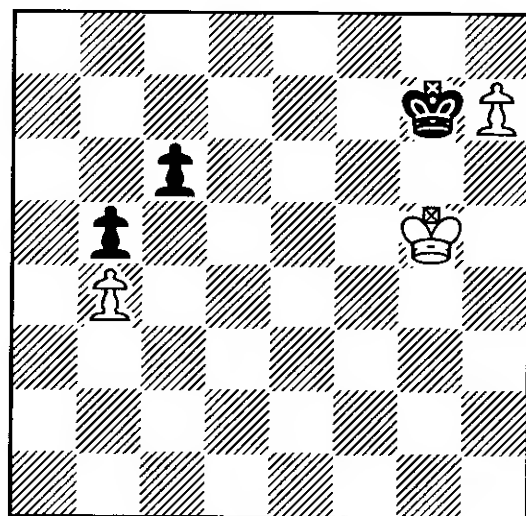
1...♔f7

If 1...♔f5? 2 ♔h5 ♖e1 3 ♖h6+ wins.

2 ♖f6! (4 points) **2...♖h4+**

2...♔xf6? 3 h8♖+ wins.

3 ♖h5 ♖xh5+ 4 ♔xh5 ♔g7 5 ♔g5! (6 points)



The white king shoulders off the black king and prevents the book draw which follows 5 h8♖+? ♔xh8 6 ♔g6 ♔g8 7 ♔f6 ♔f8 8 ♔e6 ♔e8 9 ♔d6 ♔d8 10 ♔xc6 ♔c8 11 ♔xb5 ♔b7.

5...♔xh7

On 5...c5 the composer wanted White to play the flashy 6 h8♖+, but simpler is 6 bxc5 b4 7 c6 b3 8 c7 b2 9 c8♖ b1♖ 10 h8♖+ ♔f7 11 ♖ce8 mate, as White already queens first and therefore does not need the check.

6 ♔f6! (2 points) **6...♔h6**

After 6...c5 7 bxc5 b4 8 c6 b3 9 c7 b2 10 c8♖ b1♖ White mates by, for example, 11 ♖d7+ ♔h6 12 ♖h3.

7 ♔e5! (5 points)

and wins. White could still throw it all away with 7 ♔e6?? c5! and we have a draw.

Maximum score: 20 points.

Exercise 76**H.Rinck****150 Fins de Partie 1909**

Though the computer is able to find the best moves for White here, it is not able to see that these draw. The reason is that the computer cannot work with concepts such as the wrong colour bishop for the corner. White draws by means of a stalemate trap.

1 ♖d2!! (8 points)

Threatening a discovered check after ♖f2 or ♖e2.

1...♚a8! (2 points)

Answering the threat by attacking the rook in the corner. But White is prepared for this.

2 ♖f2+! ♚xh1 3 ♖d1+! (10 points)**3...♖b2**

3...♚xd1 is stalemate.

4 ♖xh1 h2 5 ♖g2

and White sacrifices the rook for the d-pawn to leave a book draw.

Maximum score: 20 points.

Exercise 77**V.Platov & M.Platov****Belgorodskaja Pravda 1911**

White has a big problem in that he cannot stop the black h-pawn, whereas the black bishop prevents his e-pawn from advancing. Therefore White needs to set up a spectacular stalemate in order to save the game.

1 ♖g3 (5 points)

This should not be too difficult to find as all other candidate moves are without ideas.

1...♙xg3 2 e7! ♙d6+ 3 ♖a4!!

A fantastic move that secures the draw.

3...♙xe7 4 ♙c4! h1♚ 5 ♙d5+! ♚xd5 (15 points) ½-½

Maximum score: 20 points.

Exercise 78**J.Moravec****10. prize La Stratigie 1912****1 ♖h7!** (10 points)

White needs to ignore the black g-pawn as

after 1 ♖xg7? h4 White cannot stop the h-pawn promoting. It seems that 1 ♖h7 hardly makes any difference, but there is a twist.

1...h4

Black cannot save himself with 1...g5 2 ♖g6 g4 3 ♖g5! g3 4 ♖h4 (4 ♖f4 also wins) 4...g2 5 ♖h3 ♖h1 6 ♖xg2 as there is no stalemate.

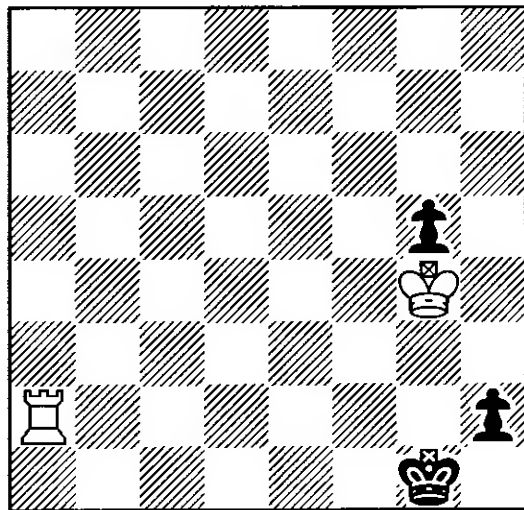
2 ♖g6 h3 3 ♖g5 h2 4 ♖g4

The point of 1 ♖h7 is seen after 4...h1♚?! 5 ♖g3! (5 points) and the threat of 6 ♖a1+ is decisive. Had White played 1 ♖xg7? then 5 ♖g3? would fail to 5...♚h8! covering a1, but here the g7-pawn blocks the long diagonal.

The only try for a defence now is:

4...g5!

4...h1♚ 5 ♖f3! (2 points) holds no chances for Black. One possible finish is 5...g5 6 ♖d2 g4+ 7 ♖xg4 ♖f2+ 8 ♖f3 ♖h3 9 ♖g3 and Black loses the knight.

**5 ♖g3 h1♚+ 6 ♖f3 g4+ 7 ♖xg4 ♖f2+ 8 ♖f3!** (10 points)

White is now winning. The main thing to remember is that the knight cannot survive on its own. When White is able to force it away from the black king, the knight will eventually be lost. Here is some analysis to back up this claim.

8...♖d3 9 ♖a4

Not the only winning move, but probably the fastest.

9...♖h2

If 9...♖e5+ 10 ♖g3 ♖f1 11 ♖f4+ wins, or

9...♖c5 10 ♜c4 ♘b3 11 ♔e2 ♘a5 12 ♜c7 ♔h2 13 ♔d2 ♘b3+ 14 ♔c3 ♘c1 15 ♜e7 ♔g3 16 ♜e1 ♘a2+ 17 ♔c4 and White wins.

10 ♜e4 ♔g1

10...♘c5 11 ♜e5 ♘d3 12 ♜d5 ♘b4 13 ♜d2+ ♔h3 (or 13...♔g1 14 ♜g2+ ♔f1 15 ♜b2) 14 ♜d6 ♔h2 15 ♔e3 and the black knight is cornered.

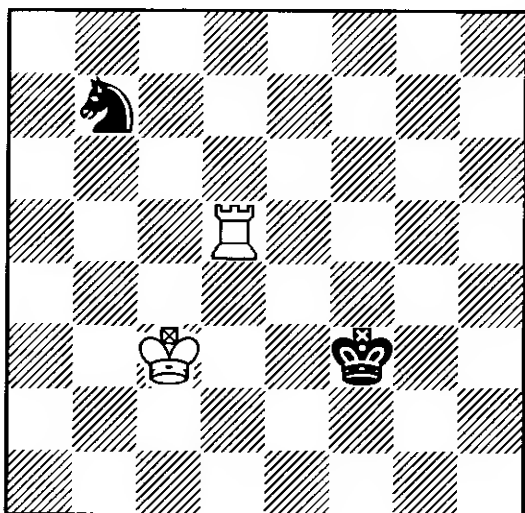
11 ♜d4 ♘c5 12 ♜d5

The black knight is trapped no matter where it goes.

12...♘b7

12...♘e6 13 ♔g3! ♔f1 14 ♜f5+ ♔g1 15 ♜e5 wins.

13 ♔e3 ♔g2 14 ♔d3 ♔f3 15 ♔c3!



The fastest way to win the knight. The threat is 16 ♔b4.

15...♔e4 16 ♔c4

Zugzwang.

16...♔f4 17 ♔b4! ♔e4 18 ♜d7 and wins.

Maximum score: 27 points.

Exercise 79

G.Ling

Deutsche Schachzeitung 1912

White makes a draw through a nice stalemate.

1 ♔xf7+! (10 points) **1...♔xf7**

Otherwise Black can never win.

2 ♘f4+ ♔h6

2...♔g7 3 ♜g3 transposes.

3 ♜h3+ ♔g7 4 ♜g3! ♜xg3

Black cannot win with bishop and pawn

vs. knight here, so why bother.

5 ♘h5+! (10 points) **5...♔xh5** stalemate.

Maximum score: 20 points.

Exercise 80

D.Przepiorka

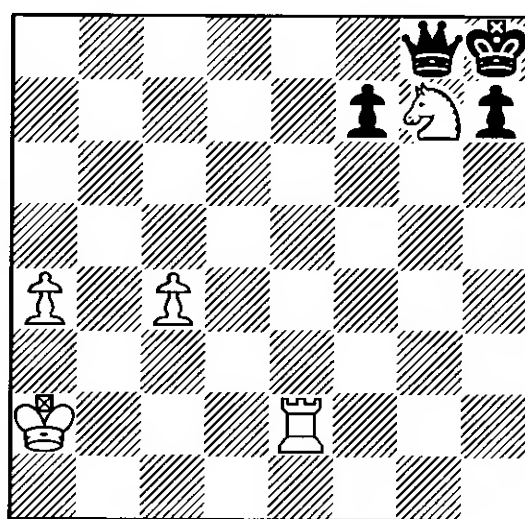
Szachista Polski 1920

White wins the queen, but it is necessary to spot Black's trap.

1 ♜e2 (5 points) **1...♜g8**

Easily the only move. 1...h6 2 ♜e8+ ♔h7 3 ♘f6+ ♔g6 4 ♜g8+ wins (3 points).

2 ♘g7!! (12 points)



Only this fantastic move wins. 2 ♘f6 looks convincing, e.g. 2...♜f8 3 ♜e8 or 2...♜g6 3 ♜e8+ ♔g7 4 ♜g8+ ♔xf6 5 ♜xg6+ hxg6 6 a5 wins. But there is a trap: 2...♜g1! 3 ♜e8+? ♔g7 4 ♜g8+ ♔h6!! 5 ♜xg1 stalemate (5 points). 3 ♘h5! ♜g8 4 ♘g7! would still win of course, but you need to see the trap to understand it.

2...h5

If 2...♜xg7 3 ♜e8+ ♜g8 (or 2...♔xg7 3 ♜g2+ ♔f8) 4 ♜xg8+ ♔xg8 5 a5 and wins.

3 ♜e8 ♔xg7 4 ♜xg8+ ♔xg8 5 a5

and White wins by one tempo (5 points).

Maximum score: 30 points.

Exercise 81

L.Kubbel

Listok Shakhmatnogo

Kruzhka Petrogubkomunni 1921

Here pawn vs rook is a draw, and the

same goes for queen vs rook and bishop. So, with these two options ruled out for Black, White is able to manoeuvre himself into the corner.

1 ♖e5! (5 points) **1...♜b4+** **2 ♔d5 ♜b5+** **3 ♕c6!!** (10 points)

Giving up the bishop is the only way to succeed. Of course this had to be foreseen.

3...♜xe5 4 d7 ♜e6+ 5 ♕b7 ♜d6! 6 ♕c8! (10 points)

Threatening to queen the pawn.

6...♜c6+ 7 ♕b7 ♜c7+ 8 ♕a8! ♜xd7 stalemate (5 points).

Maximum score: 30 points.

Exercise 82

A.Selesniev

Tidskrift för Schack 1921

1 cxb5! (3 points) **1...♕b6!**

Otherwise the rook endgame is lost.

2 bxa6! (7 points)

A common trick in rook endings. Black cannot catch the pawn.

2...♕xa5 3 a7 ♜h5+ 4 ♕g7! (2 points)

Not **4 ♕g6?** ♜h8 and draws.

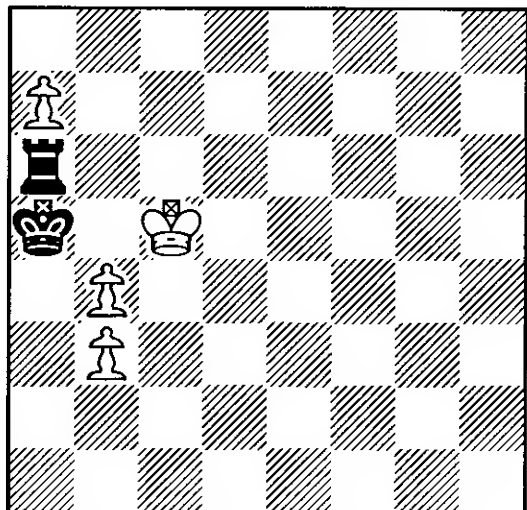
4...♜g5+ 5 ♕f7 ♜f5+ 6 ♕e7 ♜xe5+ 7 ♕d7 ♜d5+ 8 ♕c7 ♜c5+ 9 ♕b7 ♜b5+ 10 ♕c6! (8 points)

Coming at last to sixth rank, now that the black rook cannot go to the back.

10...♜b6+ 11 ♕c5! ♜a6

11...♜b5+ 12 ♕c4 and the pawn queens.

12 axb4 mate (10 points).



A very beautiful conclusion.

Maximum score: 30 points.

Exercise 83

V.Kitsigin

Magyar Sakkelet 1978

White wins by a nice rook manoeuvre and sacrifice.

1 f5! (5 points) **1...gxf5**

1...b2?! 2 fxg6 b1♚ 3 g7+ ♕h7 4 g8♚ mate.

2 ♜d6 ♕h7

It seems as if White has achieved very little, but he wins with a fantastic move.

3 ♜b6!! (15 points) **3...axb6**

Ignoring the threat of **4 ♜b7+** does not work for Black either: **3...f4 4 ♜b7+ ♕g6 5 ♜xa7 b2 (5...f3 6 ♜g7+) 6 ♜b7 a3 7 a7 a2 8 a8♚ b1♚ 9 ♜g7+ ♕f6 10 ♚c6+** with a mating attack.

4 a7 b2 5 a8♚ b1♚

Or **5...♕g6 6 ♚g2+** and **7 ♚xb2** wins.

6 ♚a7+ ♕g6 7 ♚g7 mate

Maximum score: 20 points.

Exercise 84

G.Kasparian

1st prize Shakhmaty V SSSR 1939

1 ♕g5! (5 points)

This move queens the pawn by force.

If instead **1 f7 ♜f6** and Black makes a draw. Or **1 ♜f5? ♜g1+ 2 ♕c2 b3+ 3 ♕c3 b2 4 f7 ♜c1+ 5 ♕d4 ♜c8** and it will be White who has to make a draw.

1...b3!

On **1...♜g8** not **2 f7? ♜c8+ 3 ♕d2 ♜f8 4 ♜d7 b3** and Black makes a draw, but **2 ♜d2+!!** (5 points) **2...♕b3** (the black king is now worse placed) **3 f7 ♜f8** (or **3...♜c8+ 4 ♕b1 a3 5 ♜d3+** and **6 ♜d8**) **4 ♜f2 a3 5 ♕b1** and White wins.

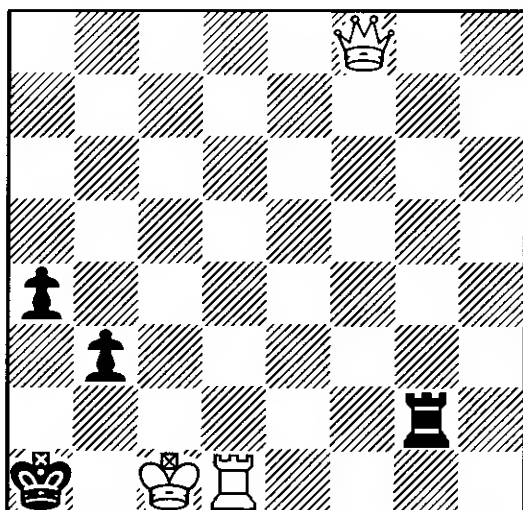
2 ♜d2+ ♕a1 3 f7! (5 points)

The only way to win. **3 ♕e3?** allows Black to make a draw both with **3...a3** and **3...b2+!? 4 ♜xb2 ♜xf6 5 ♕d4 ♜f1+ 6 ♕c2 a3!! 7 ♜b1+ ♕a2 8 ♜xf1** stalemate.

3...♖xg5

3...a3 loses to 4 ♖d1!! (5 points) when Black cannot do anything to save the day, e.g. 4...♖d6 5 f8♚ b2+ 6 ♔c2+ ♖xd1 7 ♚xa3 mate.

4 f8♚ ♖g1+ 5 ♖d1 ♖g2!



This amazing counterplay should have been foreseen. Now White can win in only one way.

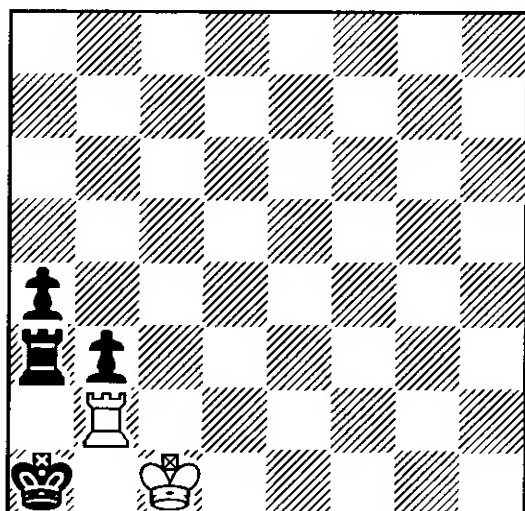
6 ♚a3+ ♖a2 7 ♖d2! (10 points)

The only way to win. 7 ♚c5 does not achieve anything after 7...♖h2!, but not 7...♖g2? 8 ♖d2! or 7...b2+? 8 ♔d2+ b1♚+ 9 ♔e1! and White wins.

7...♖xa3

Or 7...b2+ 8 ♚xb2+ and White wins after 8...♖xb2 9 ♖xb2 a3 10 ♖b1+! ♔a2 11 ♖b8 ♔a1 12 ♔c2 a2 13 ♔b3! ♔b1 14 ♖h8 a1♘+ 15 ♔c3!.

8 ♖b2!



A nice zugzwang.

8...♖a2 9 ♖b1 mate

Maximum score: 30 points.

Exercise 85

A.Herbstmann

Achalgazdra Kommunisti 1954

This exercise is about awareness of the opponent's counter-chances.

1 ♔b2!! (10 points).

Only this move wins. If 1 ♔xa2? f5!! White and cannot prevent perpetual. The black rook checks continually either on the fifth rank (2 f8♚ ♖a5+ etc) or on the e-file (2 ♖a7 ♖e5! 3 f8♚ ♖e2+ etc).

1...a1♚+

If 1...♖b5+ 2 ♔a1! and the perpetual is gone, or 1...♖a5 2 ♔a1 ♖a8 3 ♖e7 and Black cannot prevent both pawns from queening.

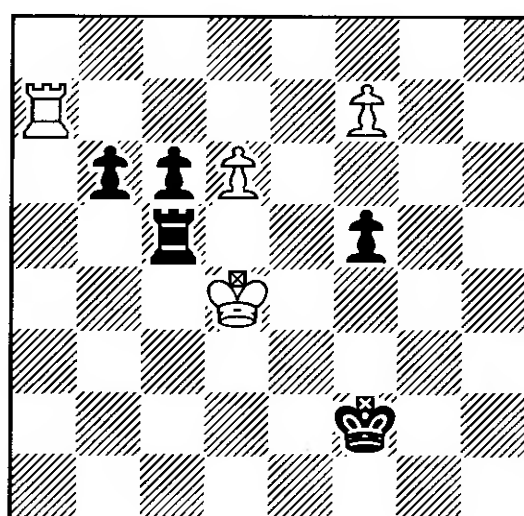
2 ♔xa1 ♖a5+

If now 2...f5 3 ♖a7 ♖e5 4 ♖a2+! and White wins.

3 ♔b2 ♖b5+

Or if 3...f5 4 ♖a7!! ♖xa7 5 f8♚ ♖a5 6 d7 ♖b5+ 7 ♔c3 ♖c5+ 8 ♚xc5+ and wins (2 points).

4 ♔c3 ♖c5+ 5 ♔d4 f5 6 ♖a7! (5 points)



Still the only winning move.

6...♖d5+ 7 ♔c3 ♖c5+ 8 ♔b2 ♖b5+ 9 ♔a1 ♖e5 10 ♖a2+! (6 points) 1-0

The perpetual check net is gone.

Maximum score: 28 points.

Exercise 86**H.Rinck****Mecklenburgisches Neues Wochenblatt 1911****1 ♖f7+ (2 points)**

Clearly this is the only move. 1 c4+? ♔e4! and 1 ♖c6+ ♔e4 both win immediately for Black.

1...♔d5

If 1...♔f4 2 ♕c1+ ♖f3 3 ♖g5+ ♖g4 (or 1...♔e4 2 ♖g5+ ♖f4 3 ♕c1+ ♖g4 transposing) 4 ♕e3 f4 5 ♕g1 ♖xg5 6 ♖c4 ♖f5 7 ♖d3 and White wins.

2 c4+ ♔c5! (3 points)

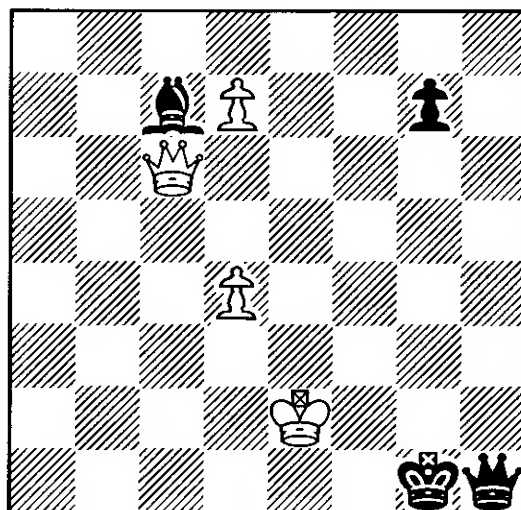
This is the best try. If the king moves to a light square the white knight gives a check and makes it back to cover g1 in time.

3 ♖g5 g1♖ 4 ♕d4+!! (10 points) 1-0

Without this White would be lost. Now he is winning, i.e. 4...♖xd4 5 ♖e6+ or 4...♔xd4 5 ♖f3+ etc.

Maximum score: 15 points.

h1♖ 7 ♖d5+ ♔g1 8 ♖xh1+ ♔xh1 9 d5 and the bishop cannot hold both pawns, or 3...b5 4 a6 h3 5 a7 h2 6 d8♖! ♕xd8 (6...h1♖ 7 ♖d5+) 7 c7 and White wins.

4 a6 h3 5 a7 h2 6 a8♖ h1♖ 7 ♖xc6+ ♔g1**8 ♖c1+! (10 points)**

After 8 ♖xc7 ♖e4+ it is not easy to escape the checks.

8...♔g2 9 ♖g5+ ♔h3

If 9...♔h2 then the reply 10 ♖f2! wins as below.

10 ♖h5+! ♔g2 11 ♖g4+ ♔h2

11...♕g3 12 ♖f3+ wins.

12 ♖f2 (2 points) 1-0

Black cannot prevent mate for long.

Maximum score: 27 points.

Exercise 88**F.Lazard****La Strategie 1921**

White escapes from this endgame by means of an original stalemate.

1 ♕xf6!

1 c6!? ♖f4 2 ♕xf6! works the same way.

1...♕xf6 2 c6 ♖f4

2...♖e3 3 c7 ♖d5+ also transposes.

3 c7 ♖d5+ 4 ♔c4!!

Here and only here. This is the beauty of stalemates.

4...♖xc7 5 d8♖ ♕xd8 6 e7! ♕xe7 stalemate (25 points).

Maximum score: 25 points.

Exercise 87**E.Barca****Tidskrift för Schack 1916****1 ♔e2!! (10 points)**

White needs to step out of the checks.

a) 1 d7? ♕c7 2 c6? ♕xa5+ wins.

b) 1 c6? ♕xd6 2 cxb7 h4 3 a6 ♕b8 4 d5 h3 5 d6 h2 and Black wins.

c) 1 d5? h4 2 d7 ♕c7 3 a6 h3! 4 a7 h2 5 a8♖ h1♖+ 6 ♔d2 (6 ♔e2 ♖h5+) 6...♕f4+ 7 ♖c2 ♖c1+ 8 ♔d3 ♖e3+ 9 ♖c4 ♖e2+ 10 ♖b3 ♖b5+ wins.

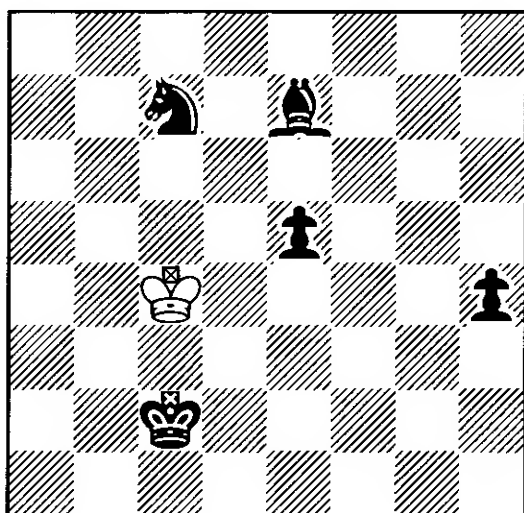
d) 1 a6? bxa6 2 d5 h4 3 d7 ♕c7 4 d6 ♕a5+ 5 ♔e2 h3 6 c6 h2 7 c7 h1♖ 8 d8♖ is more complicated, but certainly White is not going to win.

1...h4

As this is not the most useful move Black can play, White has now improved his chances on the queenside and can make a swift breakthrough.

2 d7 ♕c7 3 c6! (5 points) 3...bxc6

If 3...h3 4 cxb7 h2 5 b8♖ ♕xb8 6 d8♖



Exercise 89

I.Vandecasteele

Eclaireur de Nice 1999

White wins by queening his pawn, but this by no means easy. The first move is obvious, but then it becomes complicated.

1 f7 ♖g2+ 2 ♖b8! (8 points)

Only this wins. Black is better after 2 ♖a7? ♜c6+ 3 ♖b6 (or 3 ♖a6 ♜f1+! 4 ♖b6 ♜e5) 3...♜e5! 4 f8♜. This endgame with ♜+♜ v. ♜ arises all the time in the analysis. The main point is not whether it is winning for Black or drawn, but that it is clearly undesirable for White.

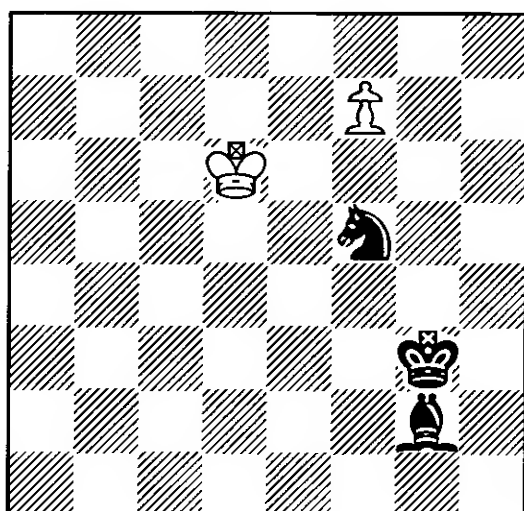
2...♜c6+ 3 ♖c7! (4 points)

Not 3 ♖c8? ♜e7+! and 4...♜g6.

3...♜d4 4 ♖d6! (10 points)

If 4 ♖d7? ♜h3+ and 5...♜e6 draws.

4...♜f5+



5 ♖d7!! (10 points)

Only this move wins. If 5 ♖c5? ♜g7! or 5 ♖e6? ♜d5+!! 6 ♖xd5 ♜e7+ and 7...♜g6 draws, while if 5 ♖e5? ♜e7 6 ♖f6 (6 ♖e6 ♜d5+ 7 ♖xe7 ♜xf7) 6...♜d5+ 7 ♖g6 (7 ♖g7 ♜c7!) 7...♜f4+ 8 ♖f5 ♜h3+ and 9...♜e6 draws.

5...♜c6+!

Did you anticipate this?

6 ♖d8!! (5 points)

Now White is able to dance around the black knight. Instead 6 ♖c7? ♜d4! 7 ♖d6 ♜f5+ 8 ♖c5 ♜g7! draws.

6...♜d4 7 ♖e7 ♜f5+ 8 ♖f6 ♜d6 9 f8♞

and White wins (8 points). The endgame of ♞ v ♜+♜ is virtually always won for the queen.

Maximum score: 35 points.

Exercise 90

Y.Afek

Pula Congress 1997

White wins in a most extraordinary fashion with a series of pawn sacrifices.

1 ♜c3! (5 points)

Threatening 2 ♜c8 and mates. Instead 1 ♜d3? ♜d2 wins for Black, while 1 ♜b3? ♜f2 also gets White nowhere.

1...♜h1

The best defence, which should have been anticipated. Now White wins by opening a second line of attack.

Instead after 1...♜f2 2 ♜c8 ♜xf3+ 3 ♖e7+ and Black is mated, or if 1...♜d2 2 ♜c8 ♜g5 (2...♜d7 3 ♖e8! wins because the black rook cannot remain on the rank) 3 ♖f7+ ♜d8 4 h6 ♜d7+ 5 ♖e8 wins.

2 g5!! (10 points)

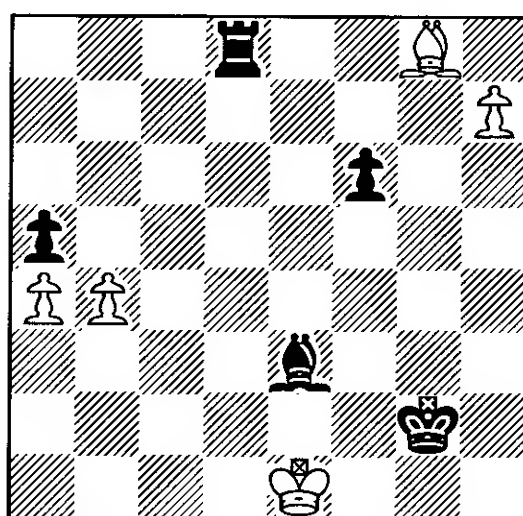
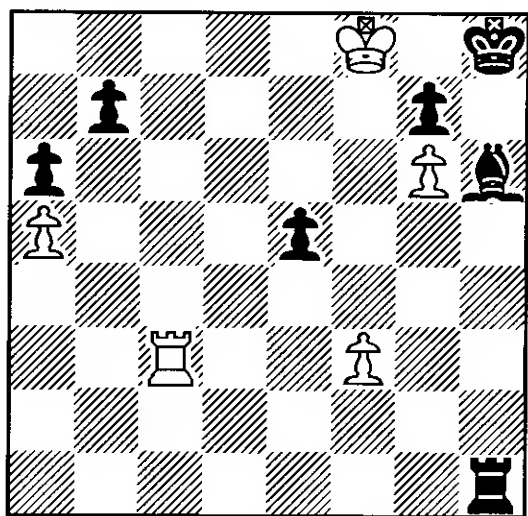
This brilliant idea changes everything. Not 2 ♜c8? ♜c1! 3 ♜d8 ♜c7 and White is lost.

2...♜xg5 3 h6! (5 points)

The idea is to open the h-file, after which the white rook can threaten mate from two directions.

3...♜xh6

The only move, otherwise 4 ♖f7 or 4 hxg7 wins.



4 f4!! (10 points)

This is the point of White's play. Now Black has no way to defend himself. Note that this move prevents the possibility of 4...♖c1 and therefore in turn threatens the move 5 ♔f7 strongly.

4...♙xf4

There is nothing better. If 4...♖d1 5 ♔e7 mates.

5 ♔f7! ♖c1 6 ♖h3+ ♙h6 7 ♖xh6+ gxf6 8 g7+ ♔h7 9 g8♞ mate.

Maximum score: 30 points.

However, Black wins with 71...♙f3! (15 points) 72 h8♞ ♙f2+ 73 ♔f1 ♖d1 mate. The lesson: *always look for candidates at the end of a forced line. There may be a final twist you need to attend to!*

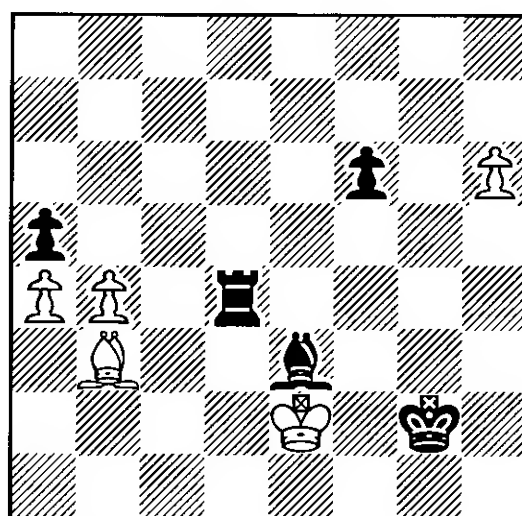
69 ♔e2 ♙f2! (5 points)

Though I have obviously been stupid, I am still playing with an idea. The point is that the black rook now can come to the h-file.

70 ♖xe3!

Otherwise 70...♖d2 mate.

70...♙xe3



71 h7?!

Surprisingly this loses a tempo. White can still draw, but now it becomes rather more challenging. At first it even seems as if 71 h7 gains a tempo which allows White to eliminate the black a-pawn. I considered this pawn as something of a meal ticket during the game. However, Jonathan Tait has im-

Solutions to in depth calculation exercises

(Maximum score for this section: 250 points)

Exercise 91

Lobron-Aagaard

Stockholm 2003

Though this position is not all that easy, I think it is nevertheless the easiest of the positions in the set of calculation exercises. It is from one of my own games – in which I displayed bad calculation technique, by not looking for opportunities at the end of the variation.

68...♙h4+?

The solution to the position is 68...♖d2! (5 points). White only has 69 ♖xe3 ♙xe3 70 h7 ♖d8 71 ♙g8, but now it looks as if Black has been swindled. This is where I stopped anyway.

proved my analysis in the preparation of this book, and he shows that the contrary is actually the case. The theme of the best way for White to defend is domination.

White should have played 71 ♖xe3! ♜xb4 when he can defend his advanced h-pawn by 72 ♙c2 ♖g3 73 h7, which gives him sufficient counterplay. My line continued 73...♜h4 74 ♙f5 ♜h2 75 ♖e4 ♜h1, but here Jonathan came up with 76 ♙d5! ♖f4 77 ♖e6 ♜h6 (or 77...♖g5 78 ♙c2) 78 ♙g6 ♖g5 79 ♖f7 f5 80 ♙xf5 ♖xf5 81 ♖g7 with a draw.

If Black tries to transpose to the game with 71...♜h4 then White plays instead 72 bxa5! ♜h3+ (or 72...♜h6 73 ♙d5+ and 74 a6 etc.) 73 ♖e4 ♜xb3 74 ♖f5 ♜h3 75 ♖g6 and White draws after 75...♜g3+ (not 75...f5 76 h7 f4?? 77 a6 and White wins) 76 ♖xf6 ♜h3 77 ♖g7 ♜g3+ etc.

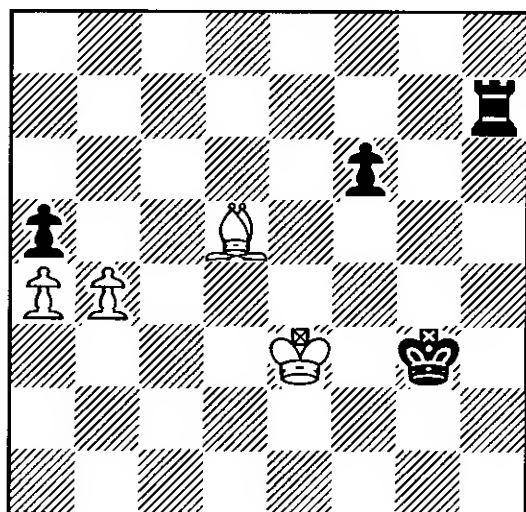
71...♜h4 72 ♖xe3 ♜xh7

72...f5 is no improvement: 73 ♙d5+ ♖g3 74 bxa5 f4+ 75 ♙d3 ♜xh7 76 ♖c4! reaches a similar position to that after 74 bxa5 below but with an extra – and more advanced – a-pawn for White.

73 ♙d5+!

I had overlooked this simple move. I was looking forward to 73...♜h3+.

73...♖g3



Here my experienced opponent throws the draw away.

74 b5??

He should have played 74 bxa5 ♜a7 75

♙d4 ♜xa5 76 ♙c6 f5 77 ♖c4 f4 78 ♖b4 ♜a6 and now 79 ♙h1 f3 80 ♙xf3! with a book draw, or if 79...♜h6 then 80 ♙e4! (only here) and Black cannot make progress.

74...♜h4

Not 74...f5? 75 b6 f4+ 76 ♙d4 f3 77 b7! when Black has to be careful: 77...♜h4+ (not 77...♜h8? 78 ♖c5 f2 79 ♙c4 ♖g2 80 ♖b6 f1♜ 81 ♙xf1+ ♖xf1 82 ♖xa5! and White wins) 78 ♖c5 ♜b4 79 ♙c6! f2 80 ♙b5 f1♜ 81 b8♜+ ♜f4 82 ♜xf4+ ♖xf4 83 ♖b6 with a draw.

75 ♙e4 f5 76 ♙xf5 ♜xa4 77 ♙d2 ♜b4 78 ♙d3 ♖f4

78...a4! 79 ♖c3 a3 80 ♖xb4 a2 would have been slightly faster.

79 ♖c3 ♖e5 80 ♙c4 ♙d6 81 ♙d4 a4 82 ♖c3 ♖c5 83 ♙f7 a3 84 ♙b3 ♜xb5 85 ♖c2 ♙d4 0-1

Maximum score: 20 points.

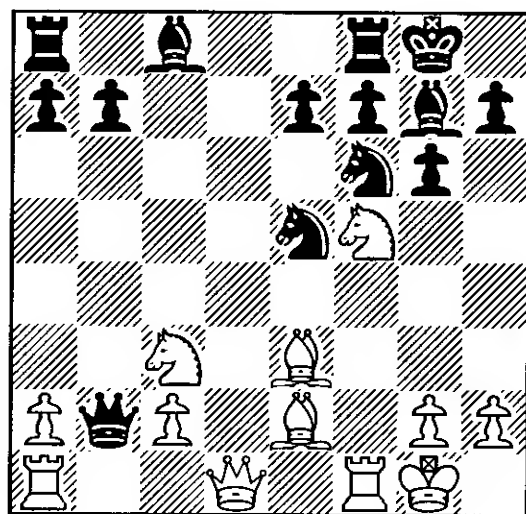
Exercise 92

L.Hansen-Aagaard

Taastrup 1999

The position arose in the Sicilian Defence after 1 e4 c5 2 ♘f3 d6 3 d4 cxd4 4 ♘xd4 ♘f6 5 ♘c3 g6 6 ♙e2 ♙g7 7 ♙e3 ♘c6 8 0-0 0-0 9 f4 ♜b6 10 e5!?. This gambit was unknown to me and hopefully also to you. I managed to calculate the theoretical refutation at the board. Did you?

10...dxe5 11 fxe5 ♘xe5 12 ♘f5 ♜xb2!
(5 points)



Greedy and necessary. 12...♖e6 13 ♖xg7 ♖xg7 14 ♖d2 ♖g8 15 ♖ae1 gives White good play for the pawn, while after 12...♖c7 13 ♖b5! ♖b8 14 ♖xe7+ ♖h8 15 ♖d6! White is even better.

13 ♖xe7+ ♖h8 14 ♖d4

This was what White was preparing. 14 ♖b5 ♖b4! does not help White.

14...♖b4!! (10 points)

This move had to be foreseen in order to capture on b2.

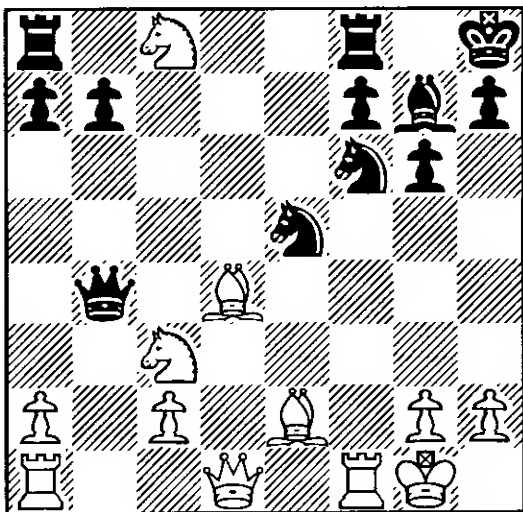
After 14...♖g8 White plays 15 ♖ed5! ♖d8 16 ♖b5 ♖f3+ 17 ♖xf3 ♖xb5 18 ♖xg7+ ♖xg7 19 ♖d4+ f6 20 c4 ♖a6 21 ♖ae1 with strong compensation for the pawn.

The alternative 15 ♖b5 is very complicated. I have analysed one line which goes 15...♖b4 16 ♖d5 ♖a4 17 ♖f4 g5 18 ♖e4 f6 19 ♖bc7 ♖b8 20 ♖b5 ♖a3 21 ♖e3 ♖d6 22 ♖xa7 ♖g4 23 ♖h3 b6 24 ♖d3 ♖c5+ 25 ♖e3 f5 26 ♖xb8 ♖xe3 27 ♖xe3 f4 and Black might be better, though it looked very suspicious on the way. No matter what, White should not go for this, but for the simple line with 15 ♖ed5 which offers good play.

15 ♖xe5

15 ♖cd5? ♖xd5 16 ♖xd5 is met by 16...♖xd4+! 17 ♖xd4 ♖f3+ and Black wins.

One of the critical lines to see was 15 ♖xc8 and then:



a) 15...♖axc8 16 ♖b1 ♖e7 17 ♖b5! ♖e8 18 ♖d5 ♖d7 19 ♖xa7 with equality.

b) 15...♖fxc8 16 ♖b1 ♖e7 17 ♖b5 ♖c6 18

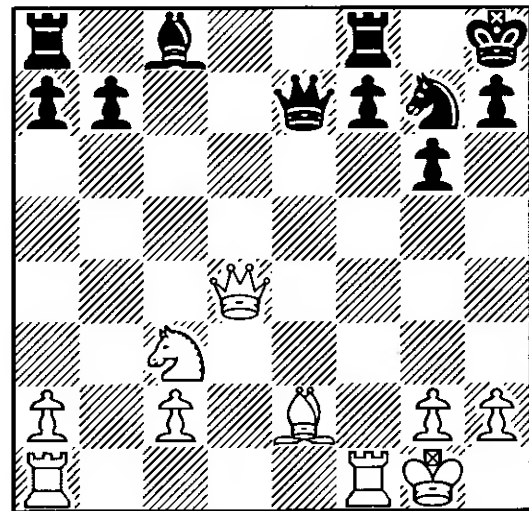
♖xf6 ♖xf6 19 ♖d5 ♖d4+ 20 ♖h1 ♖d7 21 ♖f6 ♖e7 22 ♖d5 repeating moves.

c) 15...♖d8!! (5 points) 16 ♖b5 ♖axc8 and White has little for his pawn.

15...♖xe7 16 ♖d4 ♖h5

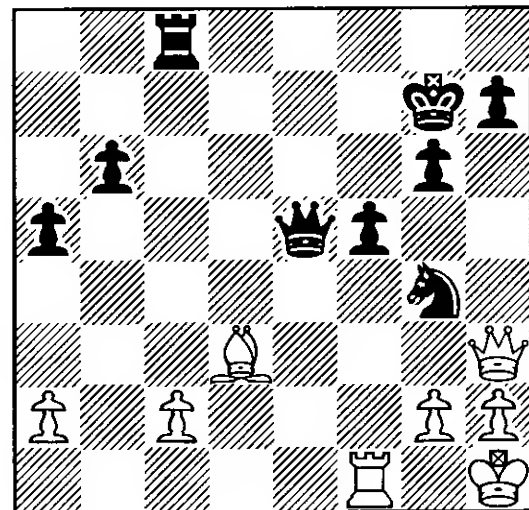
16...♖e8!? is equally good.

17 ♖xg7+ ♖xg7



Black has won a pawn and stands much better.

18 ♖ae1 ♖e6 19 ♖d5 ♖xd5 20 ♖xd5 ♖ad8 21 ♖b3 b6 22 ♖h1 ♖c7 23 ♖f3 ♖de8 24 ♖f2 f5 25 ♖d1 ♖c5 26 ♖df1 ♖e3 27 ♖d3 ♖fe8 28 ♖f7 ♖3e7 29 ♖b3 ♖h5 30 ♖b5 ♖f6 31 ♖b2 ♖f8 32 ♖d2 ♖e5 33 ♖d4 ♖g7 34 ♖b4 a5 35 ♖a3 ♖c7 36 ♖c4 ♖xc4 37 ♖xc4 ♖g4 38 ♖h3 ♖c8 39 ♖d3



39...♖xc2! 40 ♖h4

If 40 ♖xc2 ♖f2+! 41 ♖xf2 ♖e1+ mates.

40...♖f2+ 41 ♖xf2 ♖e1+ 42 ♖f1

♖xf2 43 ♖d4+ ♔f7 44 ♖d7+ ♖e7 45 ♙c4+ ♔f8 46 ♖d1 ♖e4 47 ♖d8+ ♔g7 0-1

Maximum score: 20 points.

Exercise 93

Shirov-Lutz

Germany 2001

Black has entered a desperado. Fortunately you have read that chapter and should be able to solve this position without too much effort. Right?

21 ♙xg7! (5 points)

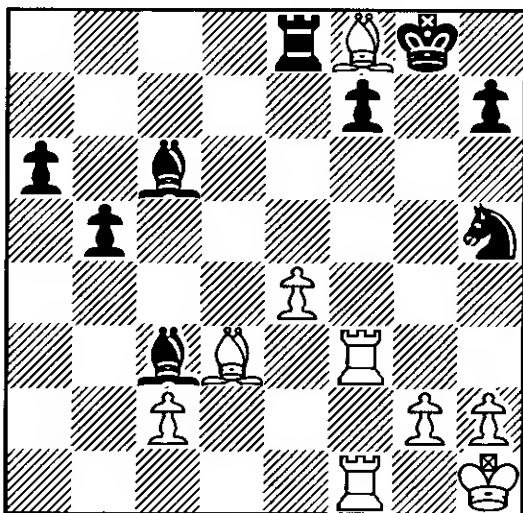
This is the only move. 21 ♙d4? ♙xb2 22 ♘xb5 axb5 23 ♙xb2 f5 gives Black a strong initiative.

21...♙xb2

After 21...♙xg7 22 bxa3 f5 23 ♖ef1! fxe4 24 ♖xf8 ♖xf8 25 ♖xf8 ♔xf8 26 ♙xe4 White keeps his extra pawn for the endgame.

22 ♙xf8 ♙xc3 23 ♖ef1! (10 points)

Not 23 ♖d1? ♔xf8! 24 ♖f5 ♖e5 and Black wins.



As so often before, the desperado is decided by a surprisingly quiet move. White does not lose material because all Black's minor pieces are hanging.

23...♖xf8

23...♔xf8 loses to 24 ♖xf7+ ♔g8 25 ♖7f5 ♘g3+ (or 25...♖e5 26 ♖xe5 ♙xe5 27 ♖f5 and wins) 26 hxg3 ♙xe4 27 ♖g5+ ♙g7 28 ♙xe4 ♖xe4 29 ♖f6! and Black can soon resign.

24 ♖f5! (5 points)

White regains the piece and ends an exchange up.

24...♘f6

24...♖e8 25 ♖c5 ♙xe4 26 ♖xc3 also wins for White.

25 ♖g5+ ♔h8 26 ♖c5

White is winning. The black pawns on the queenside are not passed pawns, but weaknesses.

26...♙xe4 27 ♖xc3 ♖e8 28 ♔g1 ♙xd3 29 cxd3 ♖e6 30 ♖a3 ♖d6 31 ♖fa1 ♔g7 32 ♖xa6 ♖xd3 33 ♖b6 ♖b3 34 ♖f1 ♘g4 35 ♖b7 ♘e5 36 h3 ♔g6 37 ♖b6+ ♔g7 38 ♖f5 f6 39 ♖bxf6 1-0

Maximum score: 20 points.

Exercise 94

Aagaard-Johansson

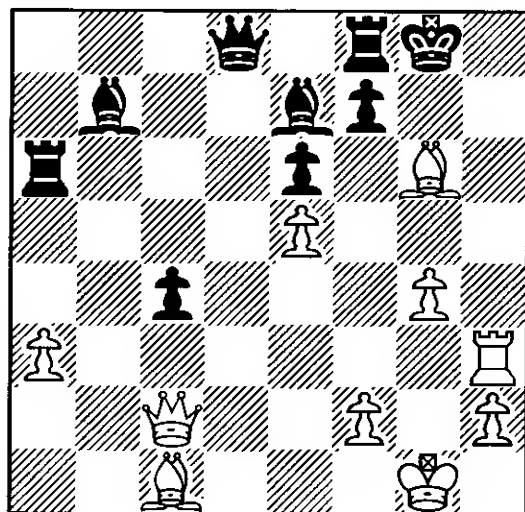
Stockholm 2003 (variation)

30...♙c6! 31 ♙xg6?

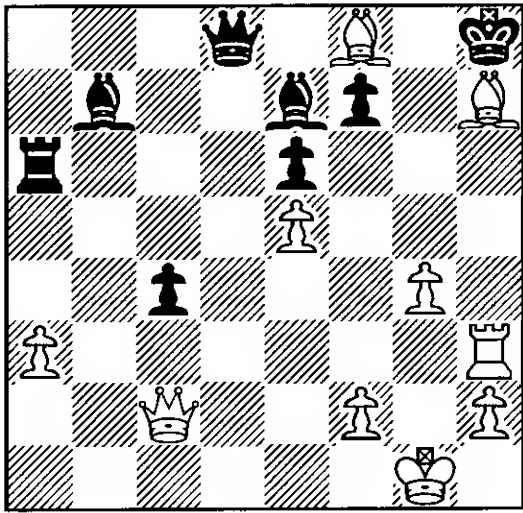
This was the move you had to calculate. Unfortunately it is not very good – or perhaps fortunately, if you managed to calculate it to the end. instead 31 ♙xc6! ♖xc6 32 ♙e3 with an extra pawn would have been better.

31...♙xb7 (1 point)

Quite clearly the only move. Now White has two lanes he can go down:



a) **32 ♙h7+ ♔g7! (2 points) 33 ♙h6+** (if 33 ♙g8 f5! and Black wins – 1 point) **33...♔h8 34 ♙xf8** (if 34 ♙g8 ♔xg8 35 ♙xf8 ♙h4! and there is no attack – 3 points)



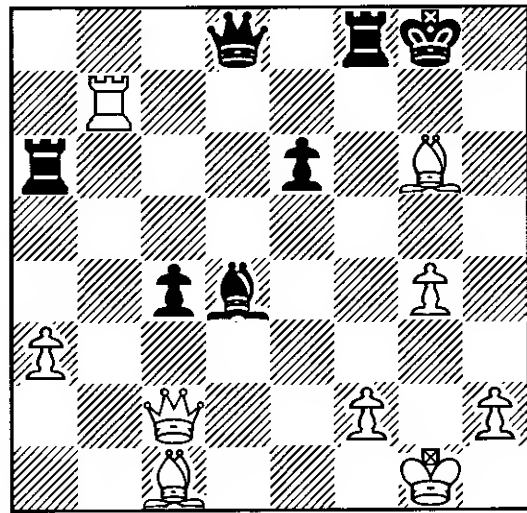
34...Rxa3!! (5 points) **35 Rxa3** (if 35 f3 Rxf3 and Black is better) **35...Rxa3 36 Rxa3 Rh4!** (threatening ...Rg4+; if instead 36...Rd5 37 Re4! Rxe4 38 Rxe4 Re4 39 Rb2 Black would have struggle a little bit for the draw) **37 Rf1** (if 37 Rc1 Rh3! since the h7-bishop isn't going anywhere, or 37 Re7!? Rxe7! 38 Re4 Re4 39 Rxe4 Rc5 with a drawn queen endgame) **37...Rh3+ 38 Re1 Rxa3** (6 points) **39 Re4 Re4 40 Rxe4 c3** and despite his extra pawn White needs to secure a draw quickly, although this should not be a major problem after **41 Rc2**.

b) **32 Rh7!?** (2 points) is an interesting and surprising idea. Black must reply **32...f5! 33 exf6!** (33 Rh6!? is less dangerous, e.g. 33...Re4 34 Rc1 Rxa3 35 Rf1 Rh4 and the threats of ...Rg4+ or ...Ra7 force White to take the perpetual; if 36 h3?? Black also has 36...Rg3+! 37 fxg3 Rc5+ 38 Rh2 Ra2+ and wins) **33...Rxf6 34 Rxb7 Rd4!** (5 points). This position could be foreseen with some anticipation.

(see following diagram)

Now White needs to play **35 Rf5!** to keep his head above water. Black can only respond with **35...Rh4!** (2 points) **36 Rh1** (not 36 Rg2? Rf7! 37 Rxf7 Rxf7 38 h3 Rxf2+ 39 Rxf2 Rxf2 40 Re6+ Rxe6 41 Rxf2 c3 and Black wins the endgame easily) **36...Rf7 37 Rxf7 Rxf7 38 Rxc4 Rxf2**

39 Rc7+ Rf6 40 Rd8+ Rf7 (or 40...Re5 41 Rh8+) **41 Rd7+ Rf6** with a draw. The end of this line is really difficult to calculate accurately. The main thing is not to analyse everything completely, but to be able to calculate what can be calculated and to evaluate correctly that which remains.



So the conclusion of the exercise is that 31 Rxc6, though very tempting is a mistake, and the clear advantage a pawn up with 31 Rxc6 should be preferred.

Maximum score: 30 points.

Exercise 95

Tal-Ljubojevic

Wijk aan Zee 1973

Black has only one move, so this exercise should not be too difficult.

36...axb3!

Ljubojevic actually played 36...Rg7? and Tal won after 37 Re6 Rxb2+ 38 Rh3 Rg6 39 Rxf7+ Rh6 40 Rd6+ Rg7 41 Rd7 b5 42 Re6+ Rg6 43 Rd8 c5? 44 Rg8+ Rh7 45 Rg5+ Rh6 46 Rf7+ Rh7 47 Rg5 (threatening 48 Rf5 mate) 1-0.

37 Rxf7 Rh4! (7 points)

The only defence.

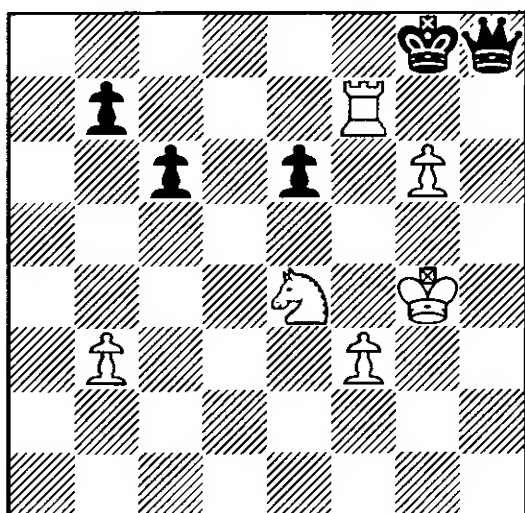
38 axb3

38 Rf6+? Rxf6 39 Rxf6 bxa2 (2 points) was Black's main defensive resource.

38...Rxb2+ 39 Rh3 Rh8+! (3 points)

This check can also be difficult to spot.

40 Rh4



40...♙d4! (3 points)

Another important move. This is all you need to see in order to play 36...axb3, perhaps not even this much.

41 ♖f4!?

This is the only winning attempt. Now Black still needs to play the next few moves very accurately.

41...b5 42 ♜e7 ♜b2!

This move keeps the balance. It was still possible to go wrong by 42...c5? 43 ♜xe6 c4 44 ♜d6 ♜a1 45 ♖f5! and Black has no defence, e.g. 45...♜b1 46 ♜d8+ ♖g7 47 ♜d7+ ♖g8 48 b4! ♜c2 49 ♜f7 ♜d3 50 ♖e6 ♜e3 51 ♖d5 ♜d3+ 52 ♖c6 and 53 ♖f6+ wins for White.

43 ♜xe6 ♜xb3 44 ♜xc6 ♖g7 and only Black can possibly win, so White needs to make his draw soon.

Maximum score: 15 points.

Exercise 96

Lilja-Holm

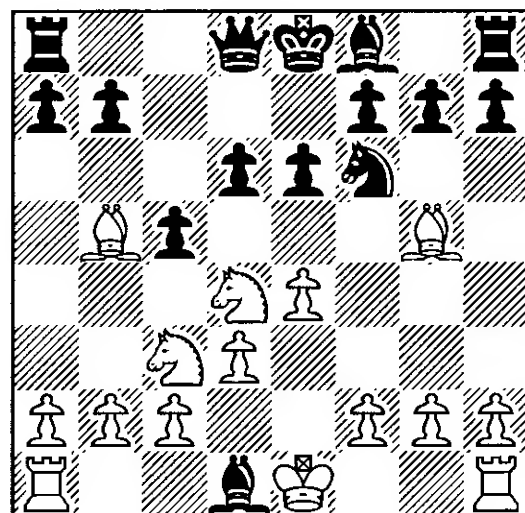
Copenhagen 2002

You were asked to calculate the consequences Richard Lilja's imaginative but incorrect sacrifice.

8 ♖xd4?! ♙xd1

This is of course the test. Not instead the feeble 8...cxd4? 9 ♙b5+ ♖e7 10 ♜xg4 dxc3 11 0-0 with a clear advantage to White at no risk.

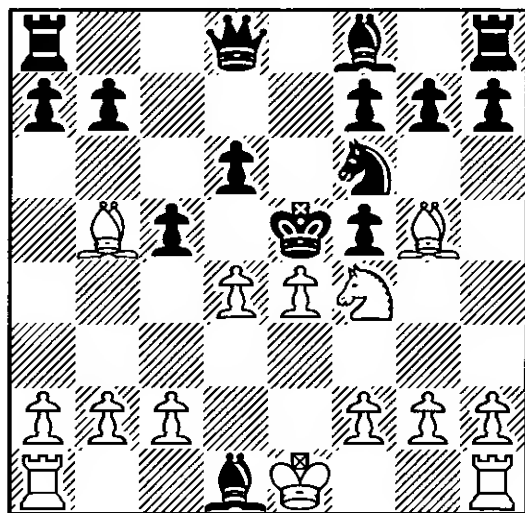
9 ♙b5+



9...♙d7?

Black decided he did not like the look of 9...♙e7 accepting the challenge, which is a shame. If for no other reason, then out of principle he should have attempted the king march to the centre: 9...♙e7! 10 ♖f5+ (3 points; obviously the idea. After 10 ♖d5+ exd5 11 ♖f5+ ♖e6 White has no way to continue the attack.) 10...exf5 11 ♖d5+ ♖e6 12 ♖f4+ ♖e5 (5 points) 13 d4+! (4 points. Again this seems to be the only way to continue the attack; if instead 13 ♖xd1 fxe4 14 dxe4 ♜b6 15 ♖d3+ ♖xe4 16 ♙c4 ♖f5).

Now Black has the following choices. Of course these could have been examined on arriving at this position, but here in the test the requirements are higher if you want to achieve full points!



a) 13...♖xe4 and then either 14 ♖xd1 ♖xd4 15 c3+ ♖e5 16 ♜e1+ ♖e4 17 ♖d3+

♙e6 18 ♘f4+ gives White perpetual check, or 14 ♖xd1 cxd4 15 0-0 ♙e5 16 ♘d3+ ♙e6 (not 16...♙d5? 17 c4+! dxc3 18 b4! and mates) 17 ♘f4+ (or if 17 ♖fe1+ ♘e4 18 ♙xd8 ♖xd8 19 f3 d5! 20 fxe4 dxe4 with three pawns for the piece) 17...♙e5 18 ♘d3+ with a draw as well.

b) 13...♙xd4 14 ♖xd1+ ♙e5 15 ♘d3+ ♙e6 16 ♘f4+ ♙e5 17 ♘d3+ is also a draw. Black can even lose with 15...♙xe4? 16 f3+ ♙d5 (or 16...♙d4 17 c3+) 17 c4+! ♙e6 18 ♘f4+ ♙e7 19 ♘d5+ ♙e6 20 0-0 f4 21 ♘xf4+ ♙f5 22 h4! d5 (22...h5 23 ♙a4! d5 24 ♖fe1 and 25 ♙c2+) 23 g4+ ♘xg4 24 fxg4+ ♙xg4 25 ♙xd8 ♖xd8 26 ♘d5 and White wins.

c) 13...cxd4! (8 points) 14 ♘d3+ ♙xe4! (5 points) and Black wins because he has ...f5-f4 giving the king an escape route, although it is still not that easy after 15 ♙xd1! (threatening 16 ♖e1+ ♙d5 17 b4 and 18 ♘f4 mate; if 15 0-0 ♙xc2 16 ♙c4 f4 and it is all over) 15...f4 16 ♘xf4 ♙f5 17 h4 d5 18 ♖e1! (if 18 ♙d3+ ♙e5! and ...♙d6) 18...♙a5 19 ♙d3+ ♘e4 20 ♘d5 ♙xd5 21 f3 ♙e6 22 ♙xe4 ♙a5 23 ♙xb7+ ♙d7 24 ♙xa8 ♙b4 (only this tactic finally finishes White off) 25 ♖e4 ♖xa8 and Black is a piece up.

10 ♙xd8 cxd4 11 ♙xd1 dxc3 12 ♙a5 cxb2 13 ♖b1 a6 14 ♙xd7+ ♙xd7 15 ♖xb2 ½-½

White is probably slightly better, but the players showed their true spirit by agreeing on a draw.

Maximum score: 25 points.

Exercise 97

Paolozzi-Chandler

Chicago 1983 (variation)

22 ♘e7+

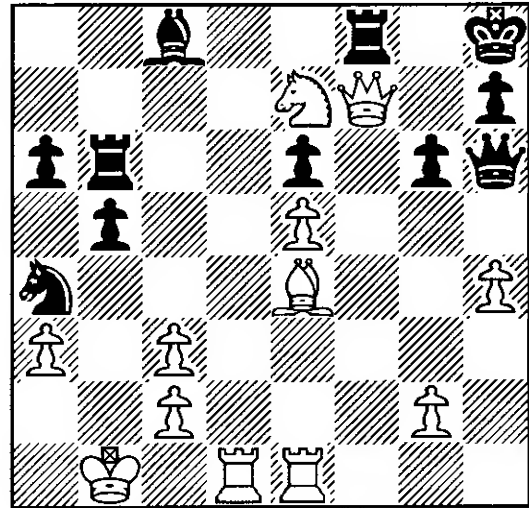
The only move. If 22 ♙a1 ♖b7! and it is not easy to suggest a way for White to proceed.

22...♙h8 23 ♙xf7 (3 points)

So far so good.

23...g6!

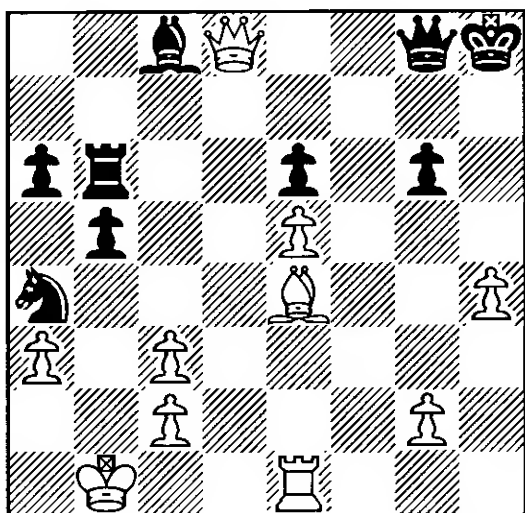
The right move order. After 23...♘xc3+ 24 ♙a1 g6 White wins with 25 ♖d8! ♖xd8 26 ♙f6+ ♙g7 27 ♘xg6+ hxg6 28 ♙xd8+ ♙g8 29 ♙xb6! (2 points), the difference being that the rook is not hanging when the knight is still at a4.



24 ♖d8!! (5 points)

This is the best way of freeing the queen. White can also play 24 ♖f1!? (a very original way of getting the queen out) 24...♘xc3+! (this should be played now; not 24...♖xf7? 25 ♖d8+ ♖f8 26 ♖dxf8+ ♙xf8 27 ♖xf8+ ♙g7 28 ♖xc8 and White wins) 25 ♙a1 ♖xf7 26 ♖d8+ ♖f8 27 ♖dxf8+ (not 27 ♖fxf8+?? ♙g7 and Black wins) 27...♙xf8 28 ♖xf8+ ♙g7 29 ♖g8+! (5 points. This manoeuvre needed to be anticipated in order to find a clear advantage for White in this line; instead 29 ♖xc8 ♘xe4 30 ♖c7 ♙h8 is not so clear.) 29...♙f7 30 ♙xg6+ (the point! – White wins a pawn) 30...hxg6 (30...♙xe7 31 ♖xc8 hxg6 32 ♖c7+ ♙f8 33 ♖xc3 and White has excellent chances in the rook endgame) 31 ♖xc8 (10 points) 31...♘d5 (31...b4 32 ♖c7 ♘b5 33 ♘c8+ ♘xc7 34 ♘xb6 bxa3 35 c4 and the knight ending is good for White with passed c- and h-pawns) 32 ♘c6! and White has an extra pawn in the endgame, as well as the more active pieces. So the endgame after 24 ♖f1 favours White, but it is not as strong as 24 ♖d8!.

24...♖xd8 25 ♙f6 + ♙g7 26 ♘xg6+! (8 points) 26...hxg6 27 ♙xd8+ ♙g8



28 ♔c7! (10 points)

Without this move White would have nothing more than a draw. Now the threats are 29 ♔d1 and 29 h5, and it is very hard to find a defence for Black. It is a matter of complete domination. A very original position indeed.

28...♙b7! (5 points)

If 28... ♖f8!? 29 ♜d1 ♙d7! 30 ♜xd7 ♜f1+ 31 ♙a2 ♜c4+ 32 ♜xc4 bxc4 33 ♜b7 and White wins without much trouble.

28...♙d7 29 ♖xd7 ♜xc3+ 30 ♜b2 ♜xe4 (30...♜a4+ 31 ♜a2 ♜c3+ 32 ♜b3 only improves the white king's position) 31 ♜xe4 ♜f8 (if 31...♜b8 32 ♜d4! with ideas of 33 ♜d6; Black is under heavy pressure with no counterplay and has already lost a pawn) 32 ♜c7 ♜b8 33 ♜d6 and White will win without too much effort, e.g. 33...♜e8 34 ♜f4 ♜d8 35 ♜xa6 ♜d5 36 ♜a7 ♜g8 37 ♜f6 ♜xe5 38 ♜xg6+ ♜xg6 39 ♜b8+ ♜h7 40 ♜xe5 is one possible continuation.

29 ♖xb7 ♔f8

With the idea of 30...b4!, e.g. 30 h5 b4 31 axb4 ♖xb4+ 32 ♙c1 ♜h6+ 33 ♙d1 ♖b1+ 34 ♙e2 ♖xe1+ 35 ♙xe1 ♜c1+ 36 ♙f2 ♜xc2+ 37 ♙g3 ♜xc3+ 38 ♜xc3 ♘xc3 39 ♙xa6 gxf5 and Black will hold the endgame.

30 ♖c8! (5 points) **30...♗xc8 31 ♜xc8**
♘xc3+ 32 ♙c1

with a clearly better, probably winning endgame for White.

Maximum score: 30 points.

Exercise 98

Kluxen-Capablanca

Hamburg (simul) 1911

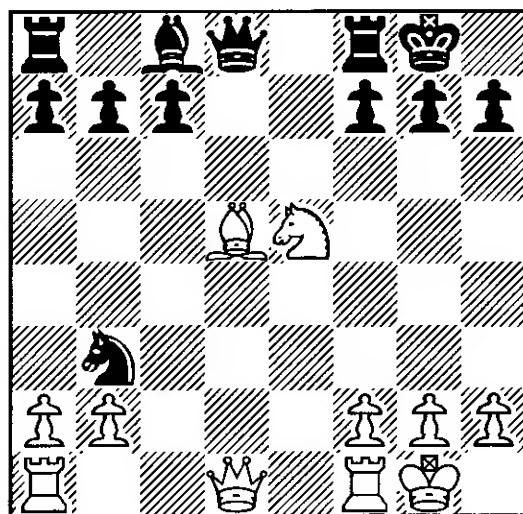
This is an important theoretical position, arising after 1 e4 e5 2 ♖f3 ♜c6 3 ♙c4 ♙c5 4 c3 ♜f6 5 d4 exd4 6 cxd4 ♙b4+ 7 ♙d2 ♙xd2+ 8 ♜bxd2 d5 9 exd5 ♜xd5 10 0-0 0-0 11 ♜e5. Black can indeed take the d-pawn, but he should be very careful regarding the following lines as they contain a trap!

11...♞xd4 12 ♞b3 (2 points)

White's idea.

12...♘b3 13 ♙xd5

After 13 ♖xb3 c6 14 ♖ad1 ♖b6 15 ♙xd5 cxd5 or 14 ♖fd1 ♙f6! 15 ♙xd5 cxd5 16 ♖xd5 ♙e6 Black has slightly better prospects.

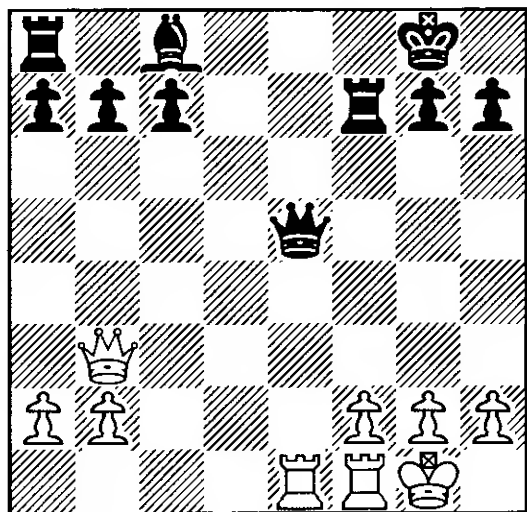


13... xa1?

This might seem forced, but again we have a kind of desperado scenario, similar to the Shirov-Lutz game above, where Black can save himself from trouble by stepping outside the absolutely forcing lines.

13... ♖f6! was the correct move (10 points). The forced line would now continue 14 ♙xf7+ (or 14 ♖xb3 ♖xe5 15 ♙xf7+ transposing, but not 14 ♘xf7? ♘xa1! when White has no compensation) 14... ♖xf7 15 ♖xb3 (not 15 ♘xf7? ♘xa1! and Black wins) 15... ♖xe5 (4 points; weaker is 15... ♙e6?! 16 ♖xb7 ♖ff8 17 ♖xc7 and Black does not have enough for the pawn) 16 ♖ae1! (after 16 ♖fe1 ♙e6 17 ♖xe5 ♙xb3 18 axb3 a6 White

is left with a worse pawn structure and pawn endings could be impossible for him to defend)



16...Ke6! (4 points; without this move Black was toast, but now the position is even) 17 Qxe6 Qxe6 18 Rxe6 is known to be a draw, but perhaps Black could even try 17...Qxb2!? 18 Rb1 Qf6 19 Qxf6 gxf6! 20 Rxb7 c5 with an active position. Still White should not lose with accurate play.

13...Qe7!? (8 points) transposes after 14 Qxb3 Qxe5 15 Qxf7+. White has the extra option of 14 Re1?! but this does not appear to be anything special: 14...Qxa1! 15 Qxf7+ (after 15 Qxf7? Qf6! White cannot continue his attack in any meaningful way, e.g. 16 Qxa1 c6 17 Qc4 Qf5 and Black wins) 15...Rxf7 16 Qxf7 Qe6! 17 Qe5 Qxa2 18 Qxa1 Qe6 and it looks as if Black has just won a pawn.

14 Qxf7+ Kh8 15 Wh5 Qf5?

This loses quite quickly. Other options:

a) 15...g6 16 Wh6 Qf5 17 Qxg6 and White was a pawn up in Oudshoorn-Hendriks, Hengelo 1994.

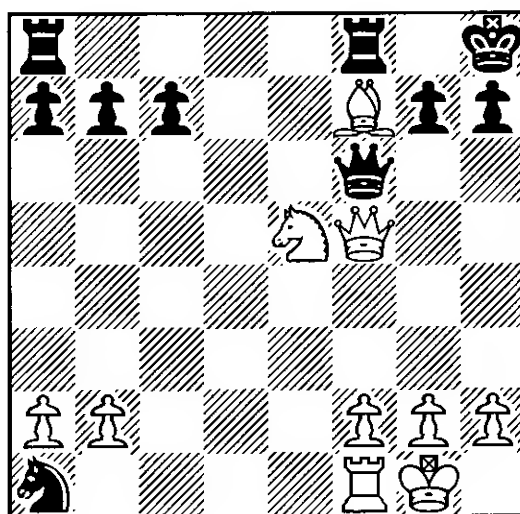
b) 15...g5 16 Wh6 Qf5 17 Qg6 Qxg6 (17...Qe7 18 Qxf5 Rf6 19 Qg6+ Rxc6 20 Qxg6 and White will win the knight) 18 Qxg6+ Kg8 19 Qxf8 Qxf8 20 Qxg5+ Qg7 21 Qd2 Qf6 22 Rxa1 and White should have won in Pilgaard-Stoinev, Copenhagen 1989.

c) 15...h6! 16 Rxa1 Qd6! 17 Qg6+ (if 17 Rd1 Qg4!! 18 Qg6+ Qxg6 19 Qxg6 Qxd1

with a level position) 17...Kh7 18 Qxf8+ Qxf8 19 Qf3! and White keeps the initiative, though nothing has been decided.

16 Qxf5 Qf6?

16...g6 17 Qe4 Qf6 18 Qxg6 Qc2 19 Qxh7 Qfe8 20 f4 is very good for White but still not 100% conclusive, whereas now Capablanca is just a piece down.



17 Qg6+!! Qxg6 18 Qxg6 Rxf5 19 Qxf5 g6 20 Qe4! 1-0

Maximum score: 20 points.

Exercise 99

Fischer-Sherwin

US Championship 1957

30 Rxf7! (5 points)

Without this move there is no advantage for White. Hopefully it did not take you long time to see that after 30 Qxf7+?! Kh8 White has won a pawn, but Black has all the play: none of the white pieces serve any purpose anymore. 31 Qd5? Qf4! and wins is just one example of the dangers in the position. White would have to be content with even chances after 31 h3 or something similar.

Now after 30 Rxf7! it is not likely that you will be able to see all variations; therefore the sum of points available in this exercise is greater than the maximum allowed score of 35 points.

30...Rc1+?!

This is not the best defence. White did not need to work out lines of play against all de-

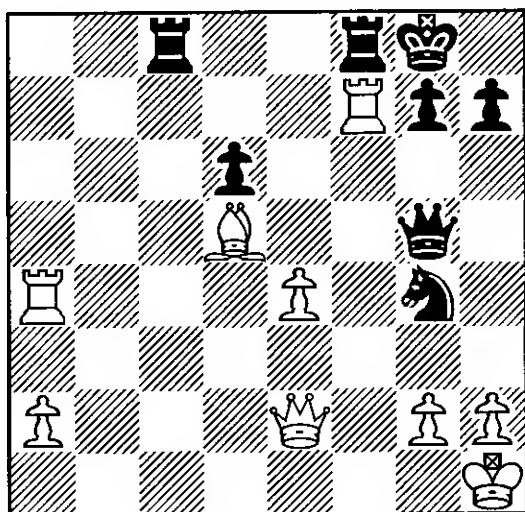
fences in order to decide upon 30 ♖xf7!, but as this is a bit of an artificial situation, in which ruminating over the position is encouraged, there are points available for seeing various refutations.

a) 30... ♖xd5? 31 ♖xf8+ ♔xf8 32 ♖f1+! and White wins.

b) 30... ♖c1+? 31 ♖f1! wins (5 points).

c) 30... ♖fc8? 31 ♖c4! (simplest; 31 ♖f1 also wins) 31... ♖c1+ 32 ♖f1! and White wins.

d) 30... ♖cc8?!



31 ♖a8!! (8 points) 31... ♖xa8 32 ♖f5+ ♔h8 33 ♖xg5 ♖ac8 (if 33... ♖ab8 34 ♖b3 is simplest) and now the only clear win is 34 ♖c4! (4 points) 34... ♔e5 35 ♖xe5 dxe5 36 h3 with a decisive material advantage for White.

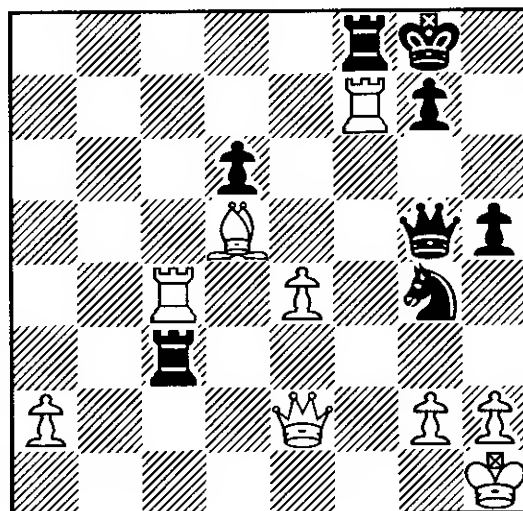
e) 30...h5! (10 points) is the toughest defence. White now has the following options:

e1) 31 ♖f1 is met by the cool 31... ♔h7! (5 points; not 31... ♖xf7? 32 ♖xf7+ ♔h7 33 ♖g8+ ♔h6 34 ♖h8+ ♔g6 35 ♖f7+! ♔xf7 36 ♖a7+ ♔f6 37 ♖d8+ ♔g6 38 ♖xg7+ and White wins) 32 ♖xf8 ♖c1 and the position is unclear. If 33 ♖e6? Black wins with 33... ♔e3! 34 ♖f5+ ♔xf5 35 ♖xf5 ♖xf1+ 36 ♖xf1 ♖b5! and White loses one of the rooks.

e2) 31 ♖xf8+ ♔xf8 32 ♖f1+ ♖f6 (if 32... ♔f6 33 ♖c4 and White has the advantage) 33 ♖xf6+ (or 33 ♖a8+ ♔e7 34 ♖a7+ ♔d8 35 ♖f7 ♖xf1+ 36 ♖xf1 ♔e3 and Black is no worse; 35... ♔f2+ 36 ♔g1 ♖h6! is not completely clear either) 33... ♔xf6 34 h3 ♔xd5 35 exd5 ♖d3 36 ♖a5 ♔f7 and Black

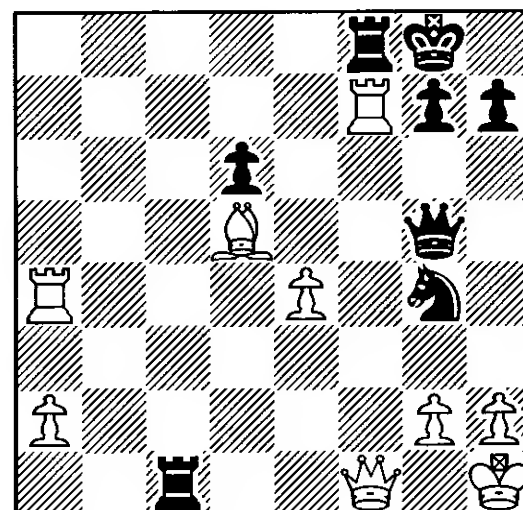
should draw this endgame without any significant effort.

e3) 31 ♖c4! (5 points)



31... ♖xc4 (forced; after 31... ♖xf7 32 ♖xf7+ ♔xf7 33 ♖xc3 ♖e5 34 ♖f3+ ♔e7 35 g3 and Black's counterplay has been repulsed, or if 32... ♔h7!? 33 ♖xc3 ♖e5 34 g3 ♖xc3 35 ♖xh5 and White wins) 32 ♖xc4 (not 32 ♖xf8+? ♔xf8 33 ♖xc4 ♖e5! 34 ♖f1+ ♔e7 35 ♖g1 ♖f4! when White has nothing better than perpetual check) 32... ♖xf7 33 ♖xf7+ ♔h7 (33... ♔f8 34 ♖e6 ♖e5 35 ♖c8+ ♔e7 36 ♖d7+ ♔f6 37 ♖f7+ ♔g5 38 ♖f5+ ♖xf5 39 exf5 and the passed a-pawn gives White close to a winning position) 34 ♖f1! with a clear advantage to White. (34 ♖c8 is less strong because of 34... ♔h6! 35 ♖d5 ♖d2 36 h3 ♖e1+ 37 ♔h2 ♔g4+! 38 hxg4 ♖h4+ with perpetual check.)

31 ♖f1!! (10 points)



This was obviously the plan. Not 31 Rf1+?? Qh8 and Black wins.

31...h5!?

A last try. If 31... Rxf1+ 32 Rxf1+ Qxd5 33 Rxf8+ Qxf8 34 exd5 and White wins.

32 Qxc1! (5 points)

The only winning move. Not 32 Rxf8+? Qh7 with an unclear position.

32... Qh4 33 Rxf8+ Qh7 34 h3 Qg3 35 hgx4 h4 36 Qe6 1-0

Maximum score: 35 points.

Exercise 100

Scemama-Baudry

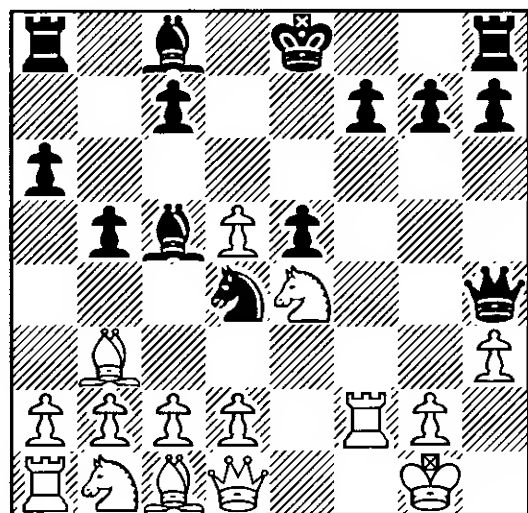
New Delhi 2000 (variation)

12... Qxf2! (8 points)

Immediate action is required. If 12... Qb6? 13 d3 (threatening 14 Qg5) 13... h6 14 Qe1 and it is hard to see that Black is getting better; while 12... Qh2? is fancy but bad. 13 Qxh2! (not 13 Qxc5? Qxh3! or 13... Qhf3+ 14 gxf3 Qxh3 and wins) 13... Qxe4 14 d3 Qg6 15 f4 and White is even preferable here.

13 Qxf2

On 13 Rxf2



Simplest is 13... Qxe4! (2 points) and White loses material. Candidates!

13... Qxh3! (4 points)

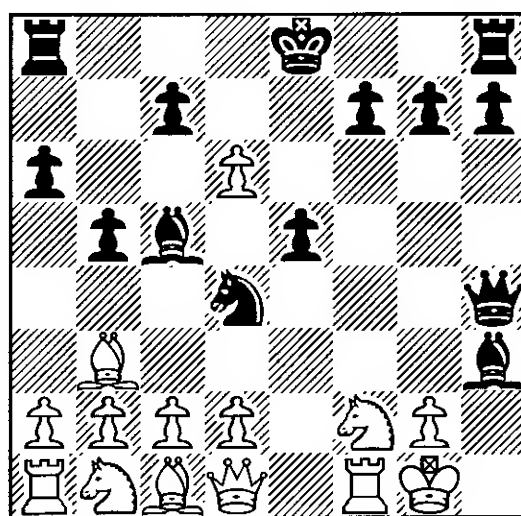
This shot is absolutely necessary for the attack. Black does not achieve anything special with 13... Qg3? 14 Qh1 Qxb3 (14... Qxh3 15 Qxh3! would obviously be wrong now; so with this bad move order Black loses the

option of bringing the bishop into the attack) 15 axb3 (also interesting is 15 Qe4!? Qg6 16 axb3 Qxe4 17 Qc3 Qh4 18 Qe1 Qh5 19 d4!? Qxd4 20 Qxb5 with unclear play) 15... Qxf2 16 Qe2 Qb6 17 Rf3 Qg5 18 Qc3 and White is not worse.

14 Qxh3

Not 14 gxh3? Qg3+ 15 Qh1 Qf3 and Black wins, while 14 Re1! is easily refuted by 14... Qg3! (14... Qxb3 15 Rxe5+ Qf8 16 Re3 Qxa1 should also win) 15 Rxe5+ Qxe5 and Black wins.

White's strongest defence is 14 d6!? (6 points), contemplating Qb3-d5 .



Now we have:

a) 14...0-0-0 (with the idea of ... Rxd6) looks tempting, but White can defend: 15 c3! (not 15 Qd5? Rxd6 16 Qxh3 Qg3 17 Qh1 Rh6 and Black wins) 15... Qxb3 (if 15... Qg4 16 Qxg4+ Qxg4 17 Qxg4 Qxb3+ 18 d4 Qxa1 19 dxc5 and White is probably better!) 16 axb3 Qg3 17 Qf3 Qxf3 18 gxf3 Qxf1 19 Qxf1 and the endgame is better for Black, but still enormously messy.

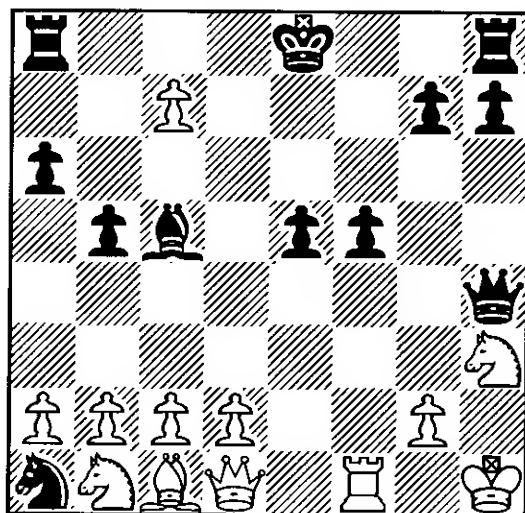
b) 14... f5! (with the idea of ... Qg4) and:

b1) 15 Qd5? Qg4! and Black wins.

b2) 15 Re1!? Qg4! (if 15...0-0-0 16 Re3 Qg4 17 Qe1 with a mess; or 15... cxd6 16 Re3 Qxb3 17 axb3 Qg4 18 Qxg4 Qxg4 19 Qxg4 fxg4 and Black is better, but not enough to impress the referee) 16 Rxe5+ Qd7 17 Qe1 cxd6 18 Re3 f4 19 Re4 Rae8 and White cannot survive against the entire

black army.

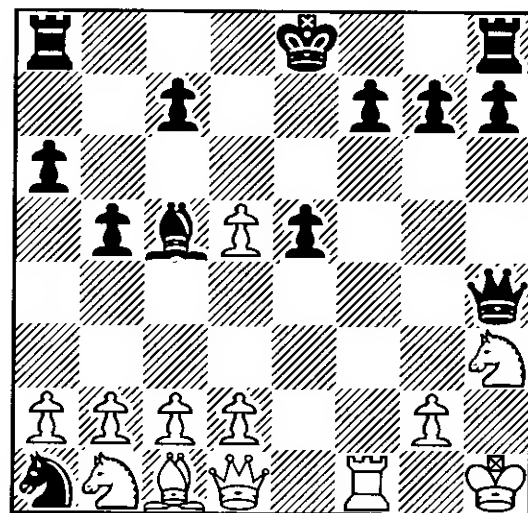
b3) 15 ♖xh3! (the only move) 15... ♖xb3+ 16 ♔h1 ♖xa1 (5 points). This position should not be deeply analysed, but simply evaluated, as there are more complicated and important lines to calculate elsewhere. The position is not 100% clear, but I can still analyse further of course: 17 dxc7



17...0-0! (17... ♖g4!? 18 b4! ♖xd1 19 ♖xd1 ♔d6 20 ♔b2 ♖xc2 21 ♖c1 ♔d7 22 ♖xc2 ♖hc8 is a very good endgame for Black, though not enough to satisfy me completely) 18 b3 and then one idea is 18...e4 19 ♔b2 f4 20 ♖e1! (20 ♔xa1 f3! and the white king is in

trouble) 20... ♖xe1 21 ♖xe1 ♖xc2 22 ♖c1 ♖ac8 23 ♖xc2 ♖xc7 24 ♔e5 ♖cc8 25 ♔xf4 g5! and Black ends the exchange up.

14... ♖xb3+ 15 ♔h1 ♖xa1 (5 points)



and Black is winning.

As said before, a position such as this cannot be analysed to a conclusion since White no longer has any forcing options. Rather you should make the evaluation that Black has a sea of pawns and a rook vs. two knights (maybe just one knight if the one on a1 escapes). Looking at the position in this way Black is obviously winning.

Maximum score: 35 points.